

**THE ROLE OF THE
UNIVERSITY RESEARCH CENTRE DIRECTOR:
SEVEN AUSTRALIAN CASES**

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ABSTRACT

This thesis develops new knowledge and understanding of the role of the university research Centre Director. Half the academic research in Australia is now estimated to be undertaken in research Centres. During the nineteen-nineties, the numbers of Australian university Centres multiplied rapidly, in response to changes in government funding policy. The introduction of the Unified National System of higher education in 1988 meant that along with many new universities came many new research Centres. As each Centre requires a Director, numerous academics have taken on this role. Sparse prior research on university research Centre Directors indicated the need for an exploratory study to examine the underlying issues related to their work. This thesis unravels the multiple realities within the Directors' lives, in the rapidly changing environment of higher education.

Seven Directors and their colleagues, in two well established and four comparatively new Centres, participated in qualitative case studies. The major issues impacting on Directors emerged as; the complex, multi-faced nature of their role, the constancy of the search for funding, the impact of Centre structure within the host university, and the importance of collegial support from superiors. Interpretive analysis was used to develop concepts for the often conflicting expectations interested parties hold of the Director.

Directors were found to vary in their use of the skills of Directorship; grantsmanship; partnering with the host university and sponsors; watchful expectancy over Centre colleagues to ensure quality; and proactive involvement outside the university to influence research outcomes. Directors rarely receive formal training or mentoring for their role, but learn from good and poor exemplars. In the competitive research funding environment, success emerged as survival of the Centre.

Several practical suggestions are forthcoming for appropriate support for new university research Centre Directors, for university administrators, and for further research.

CHAPTER ONE

PURPOSE AND JUSTIFICATION OF THE STUDY

Purpose of the study

The purpose of this thesis is to contribute to improved research management by examining the role of the Director of a university research Centre, in the context of Australian higher education in the last decade of the twentieth century. Because of the paucity of prior research, and hence theory, on Directors of university Centres, this qualitative study aims to develop new theory rather than test existing theory, through an in depth exploration of the world of the research Director.

The broad research question guiding the study was:

How do university research Centre Directors interpret and enact their role?

In a similar way to the business sector during this decade, the higher education sector has undergone rapid and extensive change in both Australia and other countries such as the United Kingdom and New Zealand. As estimated for Australia in 1997, half the research in academia is now conducted in research Centres (Meek and Wood, 1997), with each Centre having a Director. The large number of Directors, tenured academics, contract staff, postgraduate students, and visiting researchers, who work at producing knowledge within the aegis of Centres, means that these units affect a substantial proportion of people employed in higher education. The Centres are hugely diverse, in size, in discipline and extent of multi-disciplinarity, and in structural attachment to their institutions (Marsh, Turpin & Hill, 1992). In a global sense, little is known about how such research units are managed, despite this being a human resource issue affecting many of the “million or so people around the world who ... talk about it constantly” (Ziman 1994, p.175). The aim of this study is thus to discover whether commonalities exist among the Directors of such apparently diverse units, and to develop theory enhancing understanding of how those academics undertake Directorship within their Centres.

The number of university research Centres multiplied rapidly in the early years of the nineties' decade, largely as a consequence of the changes in the Australian higher education system upon the introduction of the Unified National System (UNS) of higher education in 1988. Some Centres of Excellence had been established earlier, with special government funding, in the 1982-4 triennium (DEET, 1993). The introduction of the government White Paper (1988) establishing the UNS provided for research funding for all tertiary institutions above a certain size. All universities would in future be required to submit research management plans identifying their research strengths, and establishment of research Centres was a simple way of indicating institutional strengths. The effects of these changes in funding on the academic and support staff in universities have been wide ranging and long lasting. As I write this thesis, the president of the Australian Vice-Chancellors' Committee (AV-CC) is on record suggesting that "the changing balance between public and private funding is the biggest single policy issue in higher education" (Illing, 1999).

Justification for the thesis

My interest in research policy and management was established during a three year period of employment as Research Coordinator at a large New Zealand polytechnic, working at both faculty and institutional level, during a period of extensive internal and external change in higher education. Recent developments in tertiary education in New Zealand since the passing of the Education Amendment Act (1990) permitted polytechnics to grant their students degrees, rather than diplomas, for similar academic work. This upgraded the 'second-tier' of tertiary education in New Zealand. Also at this time, the United Kingdom granted all their former degree-granting polytechnics the status of universities. In 1988, Australia introduced a Unified National System of higher education by effectively enforcing amalgamations among most of the existing universities, the many former small Colleges of Advanced Education (CAEs) and the larger Institutes of Technology (these last two groups were together known as 'the CAE sector'), all of which were granting degrees. Such degree-granting status for New Zealand polytechnics required staff to be actively involved in conducting academic research. To maintain this status, the polytechnics needed to continue to demonstrate

research activity. As Research Coordinator, it was my job to encourage, enthuse and browbeat my colleagues into undertaking research, in order to maintain the status of the qualifications offered. This involved changing a culture strongly oriented to teaching, and one similar in many ways to that of the former Australian CAEs which were now part of newly established Australian universities.

Although research Centres exist in New Zealand universities, with a few recently established in the large polytechnics, their profile has not been as high as those in Australia, particularly in 1995 when I began the work for this thesis. This is explained partly by the differences in the organisation of research funding in the two countries. This study of the dynamics of Australian university research Centres, focussing on the vital role of the Director, provides information which may also be of interest or relevance for university Centre Directors in countries other than Australia. This possibility is distinct from claiming wide generalisability, which would be inappropriate for a study conducted on a small number of cases in one country.

Research Centres and the larger, more independent research Institutes are defined as: “flexible organizational units that harness a university’s research resources to address society’s needs” (Stahler & Tash, 1994, p.552). One Head of Department interviewed for this study explained the strategic importance of research Centres in this way:

The research Centres in this department are rapidly becoming the primary vehicle for our major research effort. I just contrast that with the previous era where research tended to be fairly eclectic, focussed very much on the efforts of individuals. Now, in the late 1990s, we are seeing a movement in universities generally, and in all fields, where more and more research needs to be team research, and focussing on issues of significance (Head of Department, Centre C).

The rapid growth of research Centres in Australian universities is an example of ‘selectivity and concentration’ in research. A government report states: “The vigorous growth of ‘centres’ throughout higher education research in recent years indicates the advantage seen in focussing research by way of discrete functional/administrative frameworks.” (DEET, 1993, p.264). Such policies aim at reaping the economic benefits of the ‘division of labour’ and ‘economies of scale’. Some of the supposed benefits are, however, less easily achievable than generally supposed, although such policies have “radical institutional consequences” (Ziman, 1994, p.156).

Organisation of the thesis

My registration for this study has been in a Department of Management, however my background includes educational administration, education and accounting, and my interest in other relevant literatures such as those of the sociology of science has contributed to the development and enrichment of meaning within this study.

This thesis is organised into eight chapters. The first chapter explains the purpose and nature of the study and my interest in undertaking it. Chapter Two covers the literature on recent changes in Australian higher education and on university research Centres and their Directors, and develops the open-ended research question. After assessing the suitability and feasibility of three of the major qualitative research designs for use in this study, the third chapter justifies the research approach adopted, a case study design. Chapter Four provides the two case reports from the first stage of the study, of interest in themselves as an introduction to the world of research Centre Directors, while Chapter Five provides the four more instrumental collective case reports from the second stage, showing how each Director works in an individual style influenced by a key characteristic. Chapter Six presents the cross case analysis of the major issues uncovered in this study; the importance of access to funding for research Directors, the consequences of the structural links between a Centre and its host university, and the importance of collegial support offered for Directors. Also in this chapter is a more general discussion of Directorship providing greater detail in regard to the seven Directors studied. In Chapter Seven I develop, firstly, umbrella concepts for the outcomes expected both *by* Directors themselves, and *of them* by those groups with whom they interact. Subsequently, I develop further concepts relating to the Major Skills required of Directors in managing the major issues identified earlier in Chapter Six. These Major Skill concepts form an interpretive theory, enhancing understanding of the Director's role. In Chapter Eight, I discuss the implications of the study and its limitations, and suggest directions for future research.

I note here that spelling of the word ‘programme’ differs in this thesis between the New Zealand spelling, in that form, and the current Australian usage of the word as ‘program’, depending on whether or not direct quotes of Australian usage are involved.

Assumptions of the study

The assumptions I made in this study are:

- * That multiple realities exist because of human diversity, hence no objective truth exists. However, commonalities may be discerned among the different realities experienced.
- * That the act of analysis is an interpretation, and hence a selective rendering, see Fielding and Fielding (1986). This assumption leads to the assertion that the interpretation I argue in this thesis is my own.
- * That knowledge claims are able to be judged with reasonable accuracy, although no knowledge is certain, see Hammersley (1990).

Personal values as a source of possible bias

My background in education has conditioned me, or enabled me, to value learning and training of various kinds as appropriate for different circumstances, which led me to ask interview questions about the formal education experiences of the Directors and to consider aspects of how they learned Directorship. While I see this as enriching the study, for many management researchers this interest would be absent.

Early readers of thesis drafts have drawn my attention to what may be called ‘a feminist orientation’ in my writing, although this study is not one adhering to the tenets of feminist research. I was pleased to be able to include two women Directors in my study, although other characteristics of their own and their Centres were predominant. Because this was a study of Directors, not female Directors, I chose a mix of men and women Directors. However, being female may make me more attuned to female values and attitudes. These factors may have resulted in bias.

Summary

Chapter One has described the purpose and justified the undertaking of this study. It also covers the structure of the thesis in eight chapters, the assumptions made, and possible biases of the researcher. As a background to this study, Chapter Two will review the literature on recent changes in Australian higher education and on prior research on university research Centres and their Directors. It also outlines the development of the open-ended research question.

CHAPTER TWO

BACKGROUND TO THE STUDY

Overview of the Chapter

In Chapter One I introduced the topic of this thesis, the role of the Director in a university research Centre, demonstrating why the topic was worth further exploration. I also explained how my own interest in the area of research management grew out of changes in my work environment and the particular responsibilities I was asked to undertake.

As a background to the study, Chapter Two briefly covers the recent changes in Australia's higher education system and how those changes have impacted on the work of academics, including research. The current environment is described as turbulent (Emory & Trist, 1965; McInnis, 1992), and the changes as "the greatest upheaval in the history of Australian higher education" (Sharpham, 1993, p.54). This context is important because of the way in which the meanings of unclear actions or events are clarified by relating those actions or events to other prior or simultaneous events. For example, Weick, discussing Heider's argument concerning context, claims "Meaning is suggested only when one takes account of surrounding stimuli" (1995, p.182).

An important structural change since the nineteen-eighties was the formation of many research Centres within Australian universities, each having a Director. My review of the prior research focussing on Centres in Australia and elsewhere, however, found that minimal attention is given to their Directors. This is so despite the fact that Directors comprise a significant new layer of university management in Australia at a time when, *outside* academia, entire levels of management have disappeared (Limerick, Cunningham & Crowther, 1998). Following this review of recent changes, I look at the idea of *role* in relation to the Director, leading to development of the research question.

Change

Discontinuous Change

Australian researchers Limerick et al. (1998) argue that the nineteen eighties and nineteen nineties have been “a period of sharp, discontinuous change in the economic, social and interpersonal features of the Western world” (1998, p.xi). This period they label “an era of discontinuity” (1998, p.4), identifying a number of randomly selected trends for each of those decades, as evidence of a pattern in these recent changes. Included among the trends they note for the nineteen nineties is: “the destabilisation of the ‘knowledge sector’, particularly in universities” (p.5), with the overriding themes emerging by the end of the nineteen eighties including; globalisation, turbulence, social change, technological discontinuity, transformed organisational and management practices, and cultural individualism (p.5). Similarly, Williams, writing on financial aspects of higher education in the United Kingdom, describes the nineteen-eighties as “a decade of turbulence” (1992, p.3). Mackay, an Australian social anthropologist, claims that: “Since the early 1970s, there is hardly an institution or a convention of Australian life which has not been subject either to serious challenge or to radical change. The social, cultural, political and economic landmarks which we have traditionally used as reference points for defining the Australian way of life have either vanished, been eroded or shifted” (Mackay, 1993, p.17). This then is the background to this study of Australian academics, who in the midst of such macro level changes, are simultaneously experiencing other micro level changes much closer at hand.

Change within the Australian Higher Education System

Over the several decades prior to commencement of this thesis, the reality of academic work in Australia was being transformed, as it was around the world. Mahony (1990) quotes from an OECD Report that:

universities in OECD countries today confront common problems which derive from a single fact: they are being called upon to play an ever more important part in the restructuring and growth of increasingly knowledge-based national economies, at the same time as they are under pressure from cuts in public spending, demographic downturn, diminished legitimacy ... (OECD, 1987:8)

Smart, reflecting on Australian higher education over the previous 25 years, argues that “globally dominant ideologies of ‘world competitiveness’ and ‘economic rationalism’ have led governments [...] to seek increased steerage on their institutions of higher education” (1997, p.30) so those institutions became more instrumental in helping Australia achieve its economic and vocational goals. This intention was formalised in the White Paper, Higher Education. A Policy Statement (1988), issued by the Hon. J.S. Dawkins, then Federal Government Minister for Employment, Education and Training in Australia (Australia has a central Federal Government as well as separate State Governments). Mahony sees those moves as reflecting political concern about declining Australian economic performance, evident in “a high budget deficit, deteriorating balance of trade, higher inflation and unemployment”, while neighbouring Asian countries were achieving the world’s highest economic growth rates (Mahony, 1994, pp.127-8).

The major structural change resulting from this policy statement, the White Paper (1988), was the rapid amalgamation of the 46 institutions, known at that time as, ‘the College of Advanced Education (CAE) sector’, either with each other or one of the 19 established universities, to achieve a minimum number of student enrolments (Sharpham, 1993). In this way, by 1991 Australia replaced its binary system of 65 higher education institutions in two sectors with 38 universities, forming what is known as the Unified National System (UNS) of higher education (DEET, 1993). Prior to this, the CAEs (including a small number of large Institutes of Technology) had offered degree courses to Bachelor level, but their staff were not funded to conduct research, although pockets of research-active staff existed (Jones & Ainley, 1987). Sharpham suggests that the binary system was discontinued because it was no longer useful, did not serve national needs nor reflect the frequent overlap in university and college courses, and its differential funding of the two sectors was causing major discontent (Sharpham, 1993).

The White Paper (1988) also required universities to graduate many more students annually than was currently the case, an increase from 88,000 graduates in 1987 to 125,000 by 2001, and fee-paying international students were to be sought to provide external funding. Further, the universities were required to negotiate triennial ‘educational profiles’ of their proposed activities with the Government, including

Research Management Plans identifying their research strengths. The White Paper (1988) made a formal statement not only of the Government's commitment to maintaining basic research, but of the increasing emphasis it desired higher education institutions to place on strategic research:

The application of research findings into processes of direct social or economic benefit is also crucial to the Government's objectives and must be increased. None of these areas of research can be effective if limited resources are spread too thinly. Concentration and selectivity in research are needed if funding is to be fully effective. (AGPS, 1988, p.90)

Smart comments on the rapidity of the moves The Hon. Dawkins made in his first eight months in office: "Accustomed to considered debate and deliberation on major change, the tertiary institutions were stunned and overwhelmed. Literally before they knew what had hit them, they were confronted with a detailed plan for change and a Minister [...] prepared to intervene personally with Vice-Chancellors and use 'sticks and carrots' to force change" (Smart, 1997, p.34-5).

Over the years since the White Paper's release, the sector has continued to experience turbulence. For example, in 1996 a new Minister of Higher Education in a new Government cut university operating budgets by an estimated nine per cent over four years, resulting in "significant job losses [...] in a sector where teaching overload, low morale, low pay and stress are already endemic" (Currie (1996), quoted in Smart, 1997). These conditions appear similar to those in the United Kingdom as noted, for example, by Martin (1999) who surveyed United Kingdom and Australian academics in 1995-6. Academics in both countries emphasised the same issues arising from changes in the two systems, these issues being:

- consultation — or lack of it;
- accountability — or too much of it;
- vision — or lack of it;
- valuing people — or lack of it.

(Martin, 1999, p.15)

In regard to the issue of valuing people, Martin reports that 77 per cent of her respondents who were 'leaders' (Course coordinators, Heads of Department, Deans, and above) felt

undervalued and 88 per cent of non-leaders felt they were not valued. Some of the leaders interviewed suggested that “this was the nature of the contemporary higher education environment and that it had to be lived with” (Martin, 1999, p.22).

Accompanying the amalgamations, and adding to the stressful conditions described above, came the new attitude to research: “The last decade has seen increasing emphasis on research and research management” (DEET, 1993, p.269), and in consequence, “almost all the universities have stressed the significance of research and postgraduate studies and placed emphasis on boosting their record in these areas” (Sharpham, 1993, p.55). Admittedly, the ‘new’ universities (those not existing prior to 1987) could apply for government Infrastructure Grants provided to assist them in reaching an appropriate level of capacity, for example in libraries and equipment, in recognition of their disadvantaged status as a result of limited prior research involvement.

The official policy was that competitive research funds should be allocated to “those best able to make the most effective use of them” (DEET, 1993, p.254). With much greater numbers of academics becoming eligible to bid for contestable Government funds under the UNS, the research funding situation became highly competitive. The money for this competitive funding came from a ‘claw-back’ of part of the monies given to the pre-1987 universities as operating grants, supplemented by other funds. Further competitive funding was based on institutional success in areas such as the prestigious Australian Research Council (ARC) Large Grants Scheme and the more recent Research Quantum exercise, where institutions were graded and ranked after assessment of their performance on a variety of measures, including research outputs.

Formation of Research Centres

A Brief History and Overview

Academic research has for many decades been conducted principally by members of teaching Departments, the Department being the basic university building block. Departments control the academic reward system and the award of tenure, with Friedman and Friedman asserting that the Department “remains the single most influential force in shaping the career patterns of faculty” (1985, p.79; see also Clark, 1998). Traditionally, Departmental academics have conducted their research as individuals, following their

own interests in line with the discretion over choice of activity characteristic of universities (Vroom, 1983). In Australia prior to the 1990s, many university academics were not very productive researchers, with half the research output of the pre-1987 universities being produced by 14 per cent of the staff, and half the published work of the post-1987 universities being produced by 10 per cent of those staff (Ramsden, 1994). Friedman and Friedman suggest that research Centres, in general, evolved because of “the perceived need for organizations parallel to, but apart from Departments, and [the] priorities of society” (1985, p. 75).

The first university research Centre appears to have been the laboratory organised in 1826 by Liebig, a chemist at the German university of Giessen, a model which spread through the German university system as a basic unit involving students both as research trainees and performers (Clark, 1995). Centres have proliferated in American universities over the second half of the twentieth century (Ikenberry and Friedman, 1972), although two types of Centre — museums and observatories — appeared as early as the latter half of the nineteenth century (Geiger, 1990). Centres and institutes are seen as promising something for everybody. For faculty, they permit academics from different disciplines with a common interest to work together. For administrators, they enable resolution of internal conflicts and a way of responding to new constituencies, and may be expanded and contracted at will. And for those who “aspire to executive leadership”, a Centre Director is “not without elements of power”; Centres thus deliver what Departments cannot (Friedman and Friedman, 1985, p.76). Centres, however, are problematic in the view of Stahler and Tash (1994), due to their conflict with traditional Departments over limited resources, and to the professional envy of teaching academics who desire more time for research. Clark, after examining the research-teaching nexus across five countries, concludes that “the flow of research activity from normal university teaching locales to research Centers, laboratories and institutes” is generic rather than incidental, because “the main educational sites are clogged and diffuse” (1995, p.194).

The rationale for Centres is thus to bring together a number of highly capable scientists who will generate more and better ideas, plan and undertake more and better experiments and studies, and produce more enhanced and ground breaking results than

they would working alone, or in informal groups in traditional university Schools or Departments. In other words, synergy is assumed to increase research quality and productivity.

Dill, writing of the United States' environment for academic research, notes several reasons for the growth of research Centres over the previous several decades:

- state recognition of the economic and industrial benefits to be gained from new discoveries generated by university researchers, and subsequent financial support for university research;
- increased private commercial funding for university research as a cheap method of testing the potential of new technologies;
- increasing numbers of doctorally qualified and committed researchers spread across a variety of higher education institutions; and
- enhancing the recruitment and reward of academic staff who publish research, to gain increased institutional visibility (Dill, 1986).

In United States universities, organised research units (that is, Centres) have been “perhaps the fastest-growing employer on campus ... during the past 15 years” (LaPibus, Syverson and Welch, 1993), indicating that Centres are likely to remain a widespread organisational form in academia, at least within the foreseeable future.

Growth of Australian Centres

In 1987, an Australian Science and Technology Council (ASTEC) report included the statement:

Although there is no guarantee that a research group will be relatively more successful than a similar number of individual researchers, the presence of a group of outstanding researchers in the one place helps to develop an environment which, itself, encourages high quality research as well as promoting interaction and mutual consideration of ideas and theories. (1987, s.3.6, p.20)

The Council recommended the Government place greater emphasis on the direct funding of research to be conducted in institutions of higher education.

Since 1982, a number of ‘Centres of Excellence’ have been formed, together called the Research Centres’ Program, supported by special Government funding as renewable multi-year grants. So began “a striking phenomenon in the development of

higher education research during the 1980s” (DEET, 1993, p.261). By 1995, there were 91 Centres in this group, of three different kinds; the Special Research Centres (SRCs) formed around excellent researchers and reflecting Australia’s international strengths; the Key Centres of Teaching and Research (Key Centres) formed to develop expertise in important areas, and more closely linked with industry; and the Cooperative Research Centres (CRCs) intended for university-industry collaboration in the natural sciences and engineering.

The Federal Government’s emphasis on selectivity and concentration in the White Paper (1988) generated hundreds more university research Centres. The extent of this growth was disclosed in a survey of universities by Marsh et al (1992) when, four years later, over 600 Centres were found to exist (fifty six per cent formed since 1988), a surprising and previously unrecorded fact. Until then, and to the best of my knowledge, since then, no central register of Australian university Centres exists, because the universities are seen as independent bodies with autonomous internal arrangements (personal communication, Brennan, M., March 1995). Because Marsh and his colleagues included “groups, units and programs” in their definition of a ‘Centre’ (Marsh et al., 1992), the number of formal Centres may be lower than that reported in the survey, but the numbers are undoubtedly large. These newer Centres appear to be quietly transforming the conduct of academic research in ways less visible but equally as important as those in the much smaller number of major national Centres. While each Centre requires a Director, little is known about these research leaders. Hence I looked for prior research to help understand what Directors actually do, and how the current turbulent environment affects their work.

Prior Research on Centres and Directors

A literature search of four of the major databases including management and higher education abstracts yielded very little of direct relevance to university Centre Directors. Many listings concerned research management in R&D settings rather than universities, or were non-research articles in professional journals, or case studies of large overseas technological Centres only indirectly associated with a university. A few US studies have been conducted but this work is largely descriptive, survey based and

focussing on the historical or strategic role of Centres (Geiger, 1990; Stahler & Tash, 1994), or gives Directors only a passing mention (Ikenberry & Friedman, 1972).

Veres does write from his experience as Director of a US Centre working in the social sciences. He relates that:

Not too many years ago, the words [university research unit] evoked [...] an image of persons with scholarly mien attired in white lab coats. They all work in the physical and life sciences ... One can find them debating conceptual formulations over the lunch table. The pace is leisurely. The professorial scientists and their graduate students march to the pace of the research itself, rather than to external pressures. In the end, discoveries are made, inventions are created, and the world is made better in some tangible way (Veres, 1988, p.61).

This picture, he suggests, is a commonly held misconception, often shared by faculty staff. However, readers “experienced with such Centers may say to themselves, ‘What naïveté!’ And they are correct” (p.61).

In a section headed ‘Walking the Tightrope’, Veres relates how differences in priorities often exist between university administrators; faculty who see the Centres’ function as being to provide data for their use in writing publications; and the Directors, causing difficulty for Directors. Yet those internal pressures “pale in comparison to those of the external environment. Deadlines imposed by contracts, federal courts or client fiat increasingly have become a way of life for Directors and their personnel” (1988, p.62). His phrase “the research Centre’s tug-of-war for resources”, is a poor match with the notion of leisurely process formerly held:

The outside world, recognizing these men and women of science as helpmates [...] in its evolutionary progress, gladly supports their work. The federal government makes substantial grants available. Private foundations are not far behind, eagerly funding the most esoteric of projects. Time is not a concern. Outside funding sources patiently await the discoveries that will change our world ... time ceases to have meaning for the dedicated researcher (Veres, 1988, p.62).

His own Centre’s work was entirely within the social sciences such as economics, sociology and psychology, and other areas formerly not even regarded as sciences; in most cases, no tangible products were produced. With each day, his Centre became “more like the competitor private consulting firms, and less and less resembling a setting of professors in white lab coats” (Veres, 1988, p.64). Myths which had arisen

surrounding the way in which a Centre could best operate included: the staffing of a Centre entirely by administrative personnel, to broker university resources to meet clients' needs; the idea that Centres function best when entirely self-supporting; and that hours of work for Centre staff, and salaries, were similar to those of tenured academics, with research staff usually unable to undertake additional contract work because of conflicts of interest.

While this chapter-length description pictured life in a research Centre in a more meaningful way than the more traditional studies reported by other researchers, and the picture Veres drew may have represented the US Centre and Director in the nineteen eighties, I had no basis for assuming it represented, equally well, the Australian Centres forming a context for many academics in their role as Director.

In Australia, the one major anthropological study of a research Centre, conducted in a large long-established medical research institute, did involve interviews with and observations of the institute's Director, but he was not the major focus of the project (Charlesworth, Farrall, Stokes and Turnbull, 1989). This institute's independence, its size (300 staff) and age all identify it as very different from the small Centres of more recent vintage.

The 'Johnson Report', in examining the effects of resource concentration on research performance in Australia, concludes that "the structure, dynamics and performance of the research group across disciplines is a seriously under-researched phenomenon" (NBEET, 1993, p.20). Only a small amount of work on Australian Centres has been undertaken, most of this at the Centre for Research Policy at the University of Wollongong, itself then a Special Research Centre. However the major emphases of this work are science and technology policy, and the newest subset of the Research Centres' Program, the Cooperative Research Centres, as an example of that policy. Apart from one article by Liyanage & Mitchell (1993), only minor consideration is given to Centre leadership, and despite an estimated half of university research now being conducted in Centres (Hill, 1995), the Directors of those Centres are almost invisible in the literature.

The concept of role

Fondas and Stewart suggest an emphasis on occupational and social positions, “particularly those in complex organizations, makes the role perspective a logical choice for researchers analysing the behaviour of incumbents of managerial jobs” (Fondas & Stewart, 1994, p.86). As these researchers also point out, however, ambiguous terminology is apparent in the several literatures dealing with ‘role’. Management researchers relate role to the ten activity groups Mintzberg labelled as the roles managers play (Mintzberg, 1973), while role theorists vary their definitions of role among; the expectations shared by those comprising the ‘role senders’ (Katz & Kahn, 1978), a set of patterned, predictable behaviours, and the social or occupational position a person holds (Fondas & Stewart, 1994). Hales (1986), in a critique of prior research aimed at understanding the work and behaviour of managers, suggests that ‘role theory’ could provide a useful theoretical framework for further research on managers. Biddle has attempted to synthesise role theory while admitting it has “never generated an integrative theoretical statement” (Biddle, 1979, p. ix). Blaikie relates his own and others’ criticism of this point in the early stages of this work (1969), arguing that:

About as close as this book [Biddle, 1979] comes to any kind of theory is the specification of a set of ‘underlying propositions’. However, these do nothing more than assert that the behaviour of some persons within contexts is patterned, that these ‘roles’ are associated with social positions and expectations, that they persist because they have consequences and are embedded in social systems, and that people have to be socialized into them. What theory there is, is at best deterministic, and at worst trivial. What is missing is a theory of social action to bring the ‘role players’ to life, and to deal with social actors’ meanings and motives (Blaikie, 2000, p.134-5).

Blaikie also refers to Biddle’s recognition that role theory is weak on motivation, and reports that author’s inability to incorporate an adequate account of this, “no doubt because of the deficiencies of his functionalist framework” (Blaikie, 2000, p.135).

While in the absence of research on the work of Directors, it would be inappropriate to assume their work is similar to that of managers in business or other contexts, nevertheless, appointment to the position of Director of a university research Centre does mean that person adopts a role, in that *he or she has a new part to play*. Role, in everyday usage, means a person’s characteristic or expected function, or an

actor's part in a play (Concise Oxford Dictionary, 1995). In a location with so little prior research, I decided to use *role* in its broad everyday meaning as an initial sensitising concept for this study.

The research Centre Director's role

To be appointed to head a research Centre, it may be assumed that most Directors would already have built a career in research, in most cases with some experience in leading a research team. Despite the literature's focus on Centres, some indications exist that the Director plays a role of considerable importance and authority. Stahler and Tash, for example, state that "a Center ... usually succeeds or fails as a result of the Director's leadership and changes in the leadership of a Center may change the character of a Center more markedly than would be true for any comparable change in a Department" (1994, p.546). Bland and Ruffin, seeking the determinants of research productivity, consider leadership the most influential of their 12 variables, seeing the leader of the research group to have "a disproportionate impact through his or her influence on all of the other organizational characteristics" (1992, p.395). These authors all indicate more authority and control for the research Director than for the Head of a Department. The Review of the Australian Research Centres' Program also recognises the importance of leadership in research, suggesting that the criteria for selecting Centres be refined and expanded to include "leadership qualities, vision and management capacity of the Director" (ARC, 1992).

When I commenced this thesis, research on academics in positions of authority had been conducted principally at the level of the Vice-chancellor / President (for example, Cohen and March, 1973), the Dean (for example, Martin, 1993), or the Head of Department (for example, Knight and Holen, 1985; Middlehurst, 1993) rather than the research Centre Director. During the time I worked on this study, a stream of books dealing with aspects of the higher education systems of Australia, the UK and the US were published. These include Miller, 1995; Cuthbert, 1996; Marginson, 1997; Slaughter & Leslie, 1997; Clark, 1995, 1998; Coaldrake & Stedman, 1998; Ramsden, 1998; and Sinclair, 1998. In each, I looked largely in vain for mention of research Centres or Directors, but Slaughter & Leslie (1997) were the only authors giving more

than passing mention to Centres or Directors, their work including data provided in 1991 by Directors and staff of eight Australian Centres. The focus of their investigation, however, is on ‘academic capitalism’ by Centres commercialising science and technology, and their analysis uses the existing theories of resource dependence (Pfeffer & Salancik, 1978) and professionalisation, referencing authors such as Abbott (1988) and Brint (1994). To be successful in 1991, the Centres with which they collaborated are very likely to have been formed before the new wave of Centres established since the White Paper (1988). The Centres approached by Slaughter and Leslie were questing for saleable intellectual property “defined as patents and processes, trademarks or copyrights, and organized consultancies aimed at the commercial market” (1997, p.141), sounding more like R&D units than university Centres.

The Research Question

A possible reason for the lack of interest and research concerning Centre Directors may be the problem noted and discussed by Delamont (1996), that higher education is so familiar to those who have for many years studied therein, and now practise therein, that they find little new to observe. Delamont argues that “All social science data collection is hard, but higher education does have a particular kind of familiarity, which makes it especially tough to make its occupational cultures anthropologically strange” (1996, p.147). Because my experience of higher education was largely in a polytechnic, university research Centres and the work of their Directors were sufficiently anthropologically strange to be interesting for me, when this might not be so for many university academics. Among other aspects, I wanted to understand the experiences of Directors, what the expectations of them were, how they worked within their Centres, and whether and how their academic socialisation affected the way they acted. I was thus well placed to undertake this study because I was sufficiently close to higher education to understand its workings and, I hoped, sufficiently distant to avoid the perceptual blinkers of over-familiarity.

Because of the dearth of prior research and theory on the topic, I formulated an open ended research question that would enable theory to be developed from the data I would collect. This was:

How do university research Centre Directors interpret and enact their role?

'Interpret' and *'enact'* were further sensitising concepts, along with *'role'*. I included *'interpret'* in the question because of the many different types of Centres (Marsh et al., 1992) forming unique contexts for their Directors, who would, I assumed, need to decipher diverse signals sent from within those contexts in order to do their jobs. Being involved in new and different situations outside their past experience would require interpretation of what their role involved and what was outside it. Interpretation results in clarification. I included *'enact'* because this means to play an active part, directly engaging with and creating the environment rather than solely responding to it (Weick, 1979, p.130). Given the findings of Bland and Ruffin (1992) and Stahler and Tash (1994) concerning the powerful nature of Directorship, it also seemed the Directors might be more actively engaged in creating their environment than are academics in traditional Departments. Later, in collecting my data, my research question was reflected back to me in different words by one researcher who said: "The Director needs to have a vision about what he ought to be doing, as well as how he ought to be going about it" (see Chapter Four). *'What he ought to be doing'* in his view, can be seen as the Director's interpretation of his or her role, and *'how he ought to be going about it'* as its enactment.

Conclusion

In this chapter I have argued the rationale for this thesis on the role of the Director in a university research Centre. The reasons for undertaking this study were:

- the substantial proportion of academic research conducted within the aegis of university Centres (Hill, 1995),
- the acknowledged lack of information on the dynamics of research Centres (NBEET, 1993),
- the perceived importance of the role of the Director in a research Centre (Bland & Ruffin, 1992),
- to make a contribution to the literature in management of higher education, through an investigation conducted in a new and different context; and

- the potential benefit of the findings relating to the role of Directors for
 - university administrators, to assist in their selection and support of Centre Directors;
 - Directors in the day-to-day exercise of their duties.

Chapter Two provides an overview of the wide-ranging changes both outside and within the Australian higher education system over the past several decades. After the merging of the previous binary system of higher education into a UNS in 1988, many research Centres were formed in Australian universities as indicators of institutional research strengths, and as each Centre requires a Director, a new layer of university management emerged. Little research has been conducted on the Directors of these relatively new units, either in Australia or overseas, despite estimates that half of Australian academic research is now conducted within the aegis of Centres (Hill, 1995).

This thesis therefore examines how research Centre Directors in Australian universities undertake their work. The sparse existing knowledge of the target population, and the lack of any prior in-depth research on Directors indicated the probable advantage of a qualitative exploratory study, open to the possibility of developing new concepts or discovering relationships regarding the role of Director. These might be overlooked by adopting preconceived ideas or notions borrowed from research conducted in other contexts, or by using more structured frameworks associated with quantitative research. Accordingly this inquiry is focussed around the broad open-ended research question:

How do university research Centre Directors interpret and enact their role?

Chapter Three introduces and assesses the feasibility of various ways of answering this question for a researcher based outside Australia.

CHAPTER THREE

RESEARCH APPROACH, DESIGN AND IMPLEMENTATION

“Scientists are often enumerated, divided into categories, constructed into tables, illustrated by graphs and pronounced upon in bulk. But it is sometimes forgotten that they are human beings....” Lord Florey. *The Development of Modern Science*. First David Rivett Memorial Lecture. Melbourne 1963

Outline of the Chapter

Chapter Three firstly outlines the belief system adopted in undertaking this exploratory study of research Directors. Next, I examine each of the major research strategies of ethnography, grounded theory and case study to assess the most appropriate for this project. Having ascertained the case study strategy as the one most suitable and feasible for my circumstances, I show how the project design uses both collective cases and those of intrinsic interest. Following this, I consider the issues of reliability and validity for qualitative research, and discuss the ethical issues involved. In the second section of the chapter, I describe my experiences in actually conducting the research, recording how the Directors I eventually studied in their Centres were selected, the different ways I collected data, and the decisions I made as this qualitative study progressed. This provides a measure of transparency, enabling the reader to judge the appropriateness of those decisions in context.

As outlined in Chapter Two, the open-ended question focussing this study is:

How do university research Centre Directors interpret and enact their role?

Many of the smaller, new, Australian university Centres focus on social science research, differently from those in the Research Centres' Program which is intended to increase Australia's international competitiveness. I was interested in smaller Centres because any research Centres arising in my own polytechnic were likely to be small, and because there was no research concerning the position of Director in such Centres. My study thus aimed to develop new theory by working with Directors of 'common or garden' Centres, using an approach that would ground this theory in the reality of the Directors' experiences.

Justification of the Research Approach

Chapter Two indicates the importance of the Director's role within a research Centre (Bland and Ruffin, 1992; Ikenberry and Friedman, 1972; Stahler and Tash, 1994). The Director is recognised as the Centre's nominated leader, holding a designated position within the university, with responsibilities for staff and other resources.

The absence of both theoretical and empirical work on research Directors indicated that, to obtain a comprehensive picture of Directorship, I would need to undertake this research by face-to-face interaction with Directors, to be able to examine and interpret their attitudes, experiences, strategies and theories-in-action, and to form a framework of meaning. Argyris maintains that "relatively directly observable data" are important because these data are produced by research subjects [participants, in more acceptably qualitative terms] using their respective theories in use. Such data therefore provide a robust basis, he argues, for a process questioning our existing theories (Argyris, 1996, p.84). For authenticity, therefore, I saw a qualitative investigation of the Directors' lives needing to be constructed in a way permitting their attitudes, experiences, strategies and theories-in-action to emerge.

A central feature of qualitative research is reliance on the ethic of remaining true to the phenomenon being studied, rather than to any particular set of methodological principles (Altheide, 1994, p.488); I did not wish merely to collect qualitative data for analysis in quantitative ways, as Bryman et al, (1988, p.15) note. Neither did I wish to adopt by default the "implicitly quantitative agendas and [...] justifications" of much ostensibly qualitative organisational research (Dachler, 1997, p.710). At this stage of the thesis it is appropriate, therefore, to outline the world view I adopted in my inquiry.

The Researcher's Experience and Approach

Experience

This project, aimed at enhancing understanding of Directorship in research Centres, was underpinned by a strong belief on the part of the researcher that academic research is, in general, a worthwhile activity. Many people outside the tertiary sector have little understanding or recognition of academic research or its demands and rewards. My own background, including four years' work in administrative and academic support

for colleagues in their largely initial forays into the realm of research, had engendered in me a firm belief in the value of research. My time in Australia had been spent within the setting of an established research university, with its intangible but dense and pervasive research culture. There, research was valued unquestioningly as serious business; for example, research grants were acceptably used to 'buy out' the researcher from teaching duties.

My current position, at both the beginning and end of producing this thesis, is within a New Zealand polytechnic, newly accredited from 1991 for degree teaching by distance education, where the research culture was patchy and much more rarified. There, research was something staff did in their spare time, after teaching, if at all — a somewhat tentative, almost dubiously respectable activity that meant striking out beyond the mainstream. A research Centre totally or principally focussed on research was thus an unusual and unfamiliar environment for me. I was curious as to how people actually worked in such places, positioned as they are between the commercial contracting firm and the traditional university department, "in the nether world between commerce and academia" as one informant later said. During my time at the polytechnic I had undertaken research projects of a principally quantitative nature, and had spent some time as supervisor of a group of colleagues and as an Acting Dean of Faculty, which experience stood me in good stead during the conduct of this project.

Research approach

The approach to a particular research study is of prime importance because of the assumptions flowing from it about the nature of reality, the nature of the attitude to knowledge sought, and the relationship between the researcher and the researched. A project's methodology, used as a strategy for increasing knowledge, should be consistent with those fundamental beliefs and attitudes. In this thesis, the approach I have adopted is described as *interpretivist* (see Bryman et al, 1988, p.15; Glesne and Peshkin, 1992). Researchers adopting the interpretivist approach aim to "understand the complex world of lived experience from the point of view of those who live it." (Schwandt, 1994, p.118). This requires a researcher to interpret the meanings found within a particular situation.

The goal of theorising for interpretivists originates in phenomenology and is to provide understanding of direct “lived experience”. “Lived experience” emphasises that experience includes both cognition and emotions (Glesne & Peshkin, 1992). Interpretive scholars consider every human situation to be novel, emergent and filled with multiple, often conflicting meanings and interpretations, and the researcher attempts to capture the core of these meanings and contradictions (Denzin, 1988). Multiple realities are acknowledged to exist. While there has been discussion on the extent to which an outsider can authentically understand and represent insider views (Bryman, 1988; Hammersley, 1992; Silverman, 1993), I argue that a qualitative approach is more likely than a quantitative one to achieve a reasonable representation of these views. Bryman suggests that readers are unable to decide whether researchers are “in a strategic position to enter the world-view of their subjects, [and] whether they have adequately understood that world-view”. However the examples he uses to support this suggestion, of different interpretations following re-study of a situation, are of traditional anthropological studies where the subjects were of different social and economic status from the researcher. In this study, that is not so.

My stance, therefore, is that a world-view based on interpretivist beliefs is appropriate for a study in which prior research was sparse and existing management theory might be irrelevant. Undertaking this research study from this stance calls for a qualitative strategy to explore and enable the construction of an explanatory picture of the Directors’ work, encompassing the interactivity of their human relationships and linking them into their multi-layered context. Below, I outline the decision on the most appropriate and practical research strategy for a student in a different country from the research sites.

Selection of a qualitative research strategy

Qualitative research strategies have been employed in many human and social sciences including sociology, psychology, anthropology, political science, and education, as well as in organisational studies. Merriam has identified the major assumptions and characteristics of a qualitative approach as:

- a concern with process and meaning;

- the conduct of fieldwork in the natural setting of the action with the researcher herself constituting the primary means of data collection and analysis;
- the use of description, with a major focus on words or pictures, to convey what the researcher has learned about the phenomenon; and
- building abstractions, concepts, hypotheses or theories rather than testing existing theory.

(Merriam 1988, pp.19-20)

Hammersley's description of qualitative research is fairly similar. He lists the assumptions of qualitative method as that:

- * the nature of the social world must be discovered;
- * this can only be achieved by first-hand observation and participation in 'natural' settings, guided by an exploratory orientation; [and]
- * research reports must capture the social processes observed and the social meanings that generate them (1992, p.12).

Three of the designs used most frequently to implement a qualitative approach to research are ethnography, grounded theory and case study (Yin, 1993, Creswell, 1994, 1998). In the next section, I examine the suitability of each of these designs for the current study, given that apart from time spent in collecting the major portion of the data, I would be based outside Australia.

Ethnography

"Ethnography" is sometimes used as synonymous with "qualitative" research (see Hammersley 1992, p.1), however it is a distinctive strategy within the cluster of qualitative approaches. Ethnography developed as the method by which cultural anthropologists conduct their work, this frequently consisting of an in-depth study of one particular cultural group, being heavily dependent on participant observation and informal interviewing, and conducted over a substantial period of time, usually at least a year (see Agar, 1996; Charlesworth et al, 1990; Mouly & Sankaran, 1995). Standardised procedures exist by which ethnographers painstakingly extract, clarify, confirm and combine their findings into descriptions of the beliefs and practices of the culture of the

group studied (see Agar, 1980, 1996; Spradley, 1979). Ethnographers believe that multiple socially constructed realities exist, and this belief requires them to experience the group's interactions in as in-depth a manner as possible (Yin, 1991). Sustained, active, participation in the social group under study is therefore essential to do justice to an ethnographic study.

Because of the extremely detailed nature of the process of ethnographic analysis, it is difficult for one person to do justice to ethnographies conducted on more than one group without having substantial time available, which means a period of some years' full time work. Charlesworth et al. record the discussion with Latour, and his concern with time-on-task spent by the several researchers publishing in the sociology and anthropology of science. He (Latour) and Knorr Cetina had taken two years in the field conducting their studies of laboratory scientists (Latour and Woolgar, 1979; Knorr Cetina, 1981), and Gilbert and Mulkay (1984) had apparently spent three years in data collection alone, for theirs. "So much labour for (relatively) so slight (and sometimes trite) a result", is Latour's comment (Charlesworth et al., 1990, p.145).

The strengths of ethnography in regard to the present project were in providing an opportunity to enter closely into the lives of, at most, two groups, to observe the relationships and meanings of their world in context; and the existence of the essential assumption that multiple, socially constructed, individual realities exist, contributing to the 'invisible tapestry' of culture (Kuh & Whitt, 1988). The major weaknesses of this design were the lengthy period of time required for fieldwork, which I did not have available, and the opportunity to study only one or two Directors, which would limit my exposure to the diversity which exists.

Grounded theory

The purpose of a grounded theory is "to specify the conditions giving rise to specific sets of action/interaction pertaining to a phenomenon and the resulting consequences" (Strauss & Corbin, 1990, p.251) (emphasis in original). Grounded theory was developed and explicated as a methodology by Glaser & Strauss (1967) and further developed by Glaser (1978) and Strauss & Corbin (1990), as a strategy for developing theory through constant comparison of batches of data, consecutively collected, with

tentative, emergent ‘categories’, until these categories are ‘saturated’, confirmed, and eventually linked together by statements of relationship to form a theory. A grounded theory strategy aims at developing new theory rather than testing established theories, a strength when applied rigorously in a situation with little prior theory development. The coding strategies of breaking down, conceptualising, and reconstructing data into a grounded theory may resolve important problems. Glaser diverged from his former collaborator, Strauss, in more recent years, suggesting that Strauss’s later approach to analysis (Strauss & Corbin, 1990) moved away from the original grounded theory they had developed together. Glaser considered this amended procedure described a different way of doing research which was not grounded theory but rather a “full conceptual analysis” of a situation (Glaser, 1992).

A grounded theoretical study would allow me (or force me) to develop new theory, a major strength for this project. However, the requirement by both Glaser and Strauss (Glaser, 1978; Strauss & Corbin, 1990) for a grounded theory researcher to return to the field through a number of cycles was unsuited to my circumstances. This has been recognised in recent work by Lee which highlights the need for doctoral students and their supervisors to consider the resource aspects of grounded theory studies, involving waves of data collection (Lee, 1999). Conducting research in an overseas country entails expense such as airfares, accommodation, postage, toll calls, photocopying, and freight charges, for transporting home the substantial amounts of documentary information often collected during such an exercise. While there was a possibility of obtaining some small contributory grants (and several of these did eventuate), the research was not supported by any major grant and overall finance was limited by the extent of my discretionary income. Certainly, if I had been limited to the resources of a full time student on an allowance I could never have undertaken this research. These resource constraints, and the limited time available for me to visit Australia (while retaining my full time academic position) meant that grounded theory, like ethnography, was impracticable.

Case study

Creswell describes a case study as:

An exploration of a single entity or phenomenon, bounded by time and activity, using a variety of data collection techniques (1994, p.12).

Yin's description is similar:

An empirical inquiry that investigates a contemporary phenomenon in its real-life context, when the boundaries between the phenomenon and its context are unclear, and which uses multiple sources of evidence (1989, p.23).

Yin, in fact, sees this ability to utilise varied data as the major strength of case studies (1989, p.20). Directing a university research Centre is undoubtedly a contemporary phenomenon within its real life context, because the activity of the Director (the phenomenon) is situated within its real life context (the Centre itself as 'internal' context, with other layers of context formed by the 'local' context of its university, and the social, political and economic environment of a particular country, Australia).

While the case study has been used consistently as a strategy in organisational research for many years, (for example, Selznick, 1949), arguments in favour of its use have been formalised in the organisational literature mainly by Yin (1989, 1991) and Eisenhardt (1989). Yin argues that the case study design allows the holistic and meaningful nature of real life events such as "organizational and managerial processes" (1989, p.14) to be retained. He does not, however, see the term 'case study' as synonymous with "qualitative research", because case studies may be limited to quantitative evidence, and the issue for qualitative researchers of attempting to avoid "prior commitment to any theoretical model" (1989, p.25). Eisenhardt has argued strongly in favour of case studies as appropriate for building theory when little is known about a phenomenon. For example, she discusses the creative insight often arising from grappling with contradictory or paradoxical evidence, in that the "constant juxtaposition of conflicting realities tends to unfreeze thinking ...", which admits the existence of multiple realities in a process "alive with tension between divergence into new ways of understanding the data, and convergence onto a single theoretical framework" (1989, p.546).

Case studies are frequently cited as a qualitative strategy by other authors, for example, Creswell (1994, 1997). Yin's preference for theory use and theory building, prior to any data collection (1989, p.35), is distinctly at odds with the interpretivist approach calling for the researcher to discern themes and constructs during the conduct of

the study, for building theory from the data from the theories-in-use of the people under study, and from the picture of meaning developed by the researcher as interpreter. In this project, although accepting Yin's definition of a case study (see above), I reject his recommendation for a framework of prior theory, because of the dearth of prior research on Directors and the importance of approaching the situation with an open mind.

Organisational researchers may also find support for and elaboration of a variety of case study types and designs from authors such as Merriam (1988), Stake (1994, 1995) and Ragin & Becker (1992). For example, Stake delineates a case as an integrated system. The parts do not have to work well together, he says, and the purposes might be judged irrational, but it may still be seen as a system (1995, p.2). The activity within a research Centre is clearly such a system. As all social science is concerned with the study of people, I suggest that a more inclusive, multidisciplinary overview by organisational researchers, of other situations where the effective use of case studies has furthered knowledge about people, could lead to greater recognition of the strengths and utility of the case study as a research strategy.

A most important practical point was that because case studies use a variety of data including documents, interviews, observations, and collections of artefacts, I could clearly collect more data, in a limited time, for a case study than in the same amount of time spent in either ethnography or grounded theory. As a mature student, and principal earner of the family income, practical considerations were important.

Therefore, because of the open-ended nature of my enquiry, the dearth of systematic research on Directorship in Australian university research Centres, and for practical reasons, I decided on the case study strategy as the most appropriate design. In the section following, I review different types of case study and their uses.

Different uses of case study

Stake classifies cases into three categories: intrinsic, instrumental, and collective. Intrinsic case study work, he suggests, enables the researcher to understand "what is important about that case within its own world, not so much the world of researchers and

theorists, but [by] developing its issues, contexts and interpretations” (Stake, 1994, p.242). Intrinsic cases, says Stake, use ‘thick description’ (Geertz, 1973), furnishing sufficient complex detail to identify the vitality, trauma and uniqueness of the case. Here, the focus is on the individual case. In contrast, instrumental cases are those used when the aim is comparison, and the case may be examined “to provide insight into an issue or refinement of theory” (Stake, 1994, p.237). Collective cases are used for cross case comparisons of an instrumental nature, chosen because of belief that understanding those cases will lead to better theorising about a larger population of cases (Stake, 1994).

Yin also classifies case studies by type: exploratory, descriptive and explanatory (1989). The type employed depends, he suggests, on three conditions: the type of research question, the extent of control available to the researcher, and the degree of focus on contemporary, as opposed to historical events.

The lack of prior theory developed on research Directors indicated exploratory cases, while the diversity of Centres meant that only one or two cases might well exclude important elements in the work of Directors of many other Centres, despite the lack of emphasis on generalisability in a qualitative study. This indicated that comparisons between Directors could be a helpful and informative exercise. To do this, I devised a two stage research design; the first stage of which would be exploratory, with cases of a more intrinsic nature, and the second stage, more explanatory, using collective cases to investigate more fully the important issues arising from the first stage, while remaining alert to other new issues that may emerge. The dearth of research on Directors meant there could also be a measure of intrinsic interest in the more instrumental second stage cases, as additions to the literature. Designing the project in this way would enable me to visit a number of Directors and to undertake a cross case analysis.

Bearing in mind the trade-offs necessary in undertaking all research, I considered that my research design, using the case study strategy in two stages, would enable me to make a thorough and thoughtful response to the research question, was efficient in terms of optimising data collection during the time available for fieldwork, and could be designed to adequately protect the privacy of interviewees and their right to decline participation in the study. Because of the two stage design, the project had flexibility so

that the findings from the first stage could feed into the design of the second stage.

In this study the Director is ‘the case’, apart from special circumstances in the Centre I call ‘B’ (see Chapter Four). The Centre is regarded as a close extension of the Director, because of the control Directors exercise, compared with Heads of Departments. This means the extent of their influence on their Centre is more similar to a commercial situation (Bland and Ruffin, 1992). Finding information on Directors without reference to their Centres was impracticable. Lists of university research units are lists of Centres, not lists of Directors. In the next section I discuss the place of validity and reliability in qualitative research.

Validity and Reliability in Qualitative Research

Qualitative researchers do not use the terms ‘validity’ and ‘reliability’ in the sense in which they apply in quantitative research. They have “no single stance or consensus” in addressing such topics (Creswell, 1994, p.157). Fielding and Fielding argue that “ultimately all methods of data collection are analysed ‘qualitatively’ in so far as the act of analysis is an interpretation, and therefore of necessity a selective rendering” (1986, p.12). I agree with Miller (1992), reported at length in Creswell (1994, p.163), who suggests that a qualitative researcher seeks “believability, based on coherence, insight and instrumental utility [Eisner, 1991] and trustworthiness [Lincoln & Guba, 1985]”. An approach of this kind is in sympathy with Hammersley’s claim that “no knowledge is certain, but knowledge claims can be judged reasonably accurately in terms of their likely truth” (1990, p.61), and this is the approach I have adopted in this thesis. While Hammersley suggests the validity of ethnographic claims be assessed on the evidence presented (1990), Bryman (1988, p.77) notes the “uneasiness about the issue of interpretation” because of the tendency of researchers towards use of anecdotal ‘evidence’ in qualitative reports. To reduce possible uneasiness of this kind, I aimed to conduct the research in an ethical, trustworthy manner, so that readers might have confidence in the process by which data were collected.

Creswell and Miller (1997), (not read but reviewed in Creswell, 1997), have collected eight possible procedures for verification (the term they prefer to validity) of qualitative research. These are a synthesis of the work of a number of authors, including

Glesne and Peshkin (1992), Lincoln and Guba (1985), Merriam (1988), and Stake (1995).

This list comprises:

- prolonged engagement in fieldwork
- triangulation
- peer review or debriefing
- negative case analysis
- clarifying researcher bias
- member checking
- rich, thick description
- external audit (after Creswell, 1997)

However, some of these procedures are more feasible than others for fieldwork conducted in another country.

Prolonged engagement is cited as enabling the building of researcher-participant trust, in order to learn the culture, and to check incorrect information (Creswell, 1997). The impossibility of my spending extended time in Australia has been discussed above, however I had some knowledge of the general culture of Australian higher education from my one year of contract employment in the country in 1994, and through continuing to read the Australian academic weekly newspapers throughout the course of this thesis. I also used the following procedures in this study, to demonstrate my personal reliability, and to provide opportunity for clarification:

- provided a written explanation of the purpose of the study for interviewees, including my contact addresses (no-one contacted me later);
- made a number of visits to each Centre during my sojourns in Australia in 1995 for three weeks, and in 1996, for four weeks (in contrast to a single interview visit) and met or telephoned four of the Directors for further discussions in later years;
- requested electronic mail addresses for each interviewee (to enable mutual clarification of points of confusion), which did occur with over a dozen people; and
- returned each person's transcript, as I said I would, for verification.

I also acquired copies of post-1996 annual reports for Centres C, D and E and F, and this enabled me to keep in touch with the fortunes of these Centres during the analysis and writing stages of this thesis.

Triangulation, or focus on a point from several different viewpoints (Jick, 1979), was feasible in some forms, although its merits are accepted less critically by some authors than others (Silverman, 1993). The categories of triangulation proposed by Denzin (1984) and Stake (1995) are 'investigator', 'data source', 'theory' and 'methodological' triangulation. Investigator triangulation in a doctoral project is not possible; the work must be the student's own. Data source triangulation was feasible in part, in that cross checking of incidents reported by a number of interviewees in the same Centre occurred when I steered interview discussions to cover the various topics in the schedule. I also extended the range of interviewees in the second stage of the project, after setting out to interview the Directors and their staff at various levels. One Director suggested I speak to her Dean, for another viewpoint, and so I interviewed or corresponded with Deans and Heads of Department in four second stage Centres. Theory triangulation was not possible with one researcher. Methodological triangulation I undertook, in four out of six Centres where this coincided with my timetable. This was done through review of Centre annual reports, university research policies and plans, reports of Centre review committees and other assorted items listed in Appendix One; by interviews for face to face interaction and catching on audiotape the usually free flowing responses of often highly articulate people; and by sitting in on staff meetings to observe the Director interacting with a group.

Peer review was limited to the comments of my doctoral supervisors at various stages, and to review of draft chapters by a personal friend, an academic in humanities rather than management. Some preliminary results were presented at conferences in Australia, New Zealand and the United Kingdom, in the University of Canterbury doctoral seminar series, and in two seminars to my colleagues in the accounting discipline.

Negative case analysis I undertook to some extent, watching out throughout the study for examples. Because my data was collected within a small number of separate

Centres and I read and reread the transcripts, I knew the data in intense detail, enabling me to compare and contrast issues and experiences in different Centres.

Clarifying researcher bias was something I did in Chapter One and earlier in this Chapter, making clear my background and particular interests.

Member checks were conducted initially through asking for verification of interview transcriptions. I also sent a summary of the findings in a draft article to all the first stage Centre interviewees. Stake (1995) relates that typically he receives little comment back from his participants when undertaking such checks, although useful clarifications have been obtained. Six responses were received from 17 interviewees, with only one area of misunderstanding needing to be clarified. I also involved two other Australian academics in this review exercise, one at each stage, both of whom had been closely associated with Centres. Their comments added to the analysis, and supported the viewpoints represented in the thesis (I call these people Commentator One and Commentator Two).

I also sent a summary of parts of my emerging theory to all the Directors, requesting comments. Although I did receive feedback from the majority of the Directors, it was simply not feasible to expect these intensely busy people to review the entire narrative of my report. The extreme pressures on their time are a feature of their literal struggle for survival in their positions, including the responsibility for those dependent on their success for continued employment. My study was not their research, they were not all social scientists and hence unfamiliar with such procedures, and consequently this had a low priority. Curtis (1996) had similar experiences in her work with research groups, developing a qualitative instrument to assess research quality. Despite her attempts to elicit confirmation of findings, a number of group leaders were simply unavailable because of overseas fieldwork or intense pressure to meet deadlines. This is the current reality of life in Australian research Centres.

Rich, thick description was used in the case reports, to enable readers to relate to the experiences of Directors and staff.

External audit will occur through the examination process of this thesis.

Because the existence of multiple realities is recognised in the interpretive view of the world, I saw the procedures described above as contributing towards research findings in which I can have “confidence [...] but not certainty” (Hammersley, 1992, p.50-51). Bryman suggests as problematic the translation of ethnographic interpretations of data into a suitable form for academic presentation, because these are “interpretations of other people’s interpretations” (Bryman, 1988, p.79). In this thesis, this problem is less of an issue, because the research participants and the readers of the thesis, as well as the researcher, are all members of the academic community. Certainly, I am an interpreter of the views of participants, but the differences between distinct social strata are absent. In summary, I was able to use, in some way, all of the procedures discussed by Creswell as listed by Creswell and Miller (1997) in verifying the findings of this study.

Reliability is a quantitative concept concerning the likelihood of the results of a particular study being found similar to those of other researchers, should the same study be replicated. As a qualitative researcher considers himself or herself to be the major research instrument, the differences in individual background, education, cognitive ability and experience make it unlikely that two people working individually will each arrive at entirely similar conclusions. As Stake suggests, “no two investigators ever interpret things entirely the same” (1995, p.113). There is also the problem that contexts do not remain the same. This is connected to Maxwell’s point about ‘reactivity’, meaning “the influence of the researcher on the setting or individuals studied” (1996, p.91). The heightened awareness of issues, actions, and their possible causes, which research participants develop through answering questions the researcher poses, means that their attitudes change. In addition, other factors in the external or internal contexts may have changed, meantime. Another researcher attempting to replicate a study would therefore be entering a different context, which mitigates against the exact duplication of findings.

To assist replication of case study research in other settings, Yin (1989) suggests a protocol for data collection be developed and reported. In this study I used a protocol as an aid to good organisation and consistency (see Appendix One), however I cannot guarantee that another researcher’s attempt to replicate my study with the same or other cases would reach all of the same findings or conclusions.

Ethical issues

When the proposal for this doctoral research was submitted to the Ethics Committee of the University of Canterbury, the members of that Committee were unable to agree, firstly, on whether the proposal needed even to be considered, and secondly, once it was tabled for consideration, whether I needed the written consent of interviewees, rather than oral consent. The reason for these disagreements was because of the ethical regulation of this institution concerning “professional persons in the areas of their competence”. The rationale appears to be that when people in this social group are involved in research, they will adhere to the standards of their particular profession in any dealings with the researcher. Hence it would be inappropriate for the university to intervene in the actions of autonomous individuals acting in accordance with their own ethical codes of conduct.

In the case of the academic populations I wished to involve in my study, it could be thought disrespectful and inappropriate to judge those academics as ‘not professionals’, especially given the university culture of maximising reputation. If those other academics are not professionals, it follows that all academics are likewise, not professionals, a derogatory implication. The opposing viewpoint is that academics are not professionals because of their traditional emphasis on altruistic pursuit of ‘the truth’ and collegial decision making, in contrast to fee-earning practitioners. However, having decided to review my proposal despite the disagreement noted above regarding its eligibility, the Committee approved it (see Appendix Two).

Ethical conduct of the study was approached in a number of ways. While I was not dealing with a ‘naive’ population, but rather with an ‘elite’ accustomed to research (albeit sometimes of different types) who would know the accepted ethical standards, it was essential for my own future reputation as a member of the academic community, and in a ‘patriotic’ sense as a New Zealander conducting international research, that I did maintain high ethical standards. Most importantly, confidentiality is to be maintained by withholding the identity of Centres and Directors in any publications from the thesis, and even within the thesis itself (although my supervisors were aware of the locales).

Another important ethical point concerned the interview data obtained from contract staff members. They needed protection for their viewpoints, it being possible that reported strong staff opposition to the way in which a Centre was directed could endanger the renewal of their contracts, despite the tradition of academic freedom in universities. Despite my assurances of confidentiality for the interviewees, two women researchers in Centre A asked “How confidential is this?” when, near the end of their interviews, I asked about their Director’s strengths. Hence, in writing up the case reports, I was on occasion careful to incorporate particular comments in a more generalised background description rather than by using direct speech, where modes of speech might be recognised. To convey the intention of the study and these precautions to interviewees, I used a consent form which they were asked to sign in duplicate, (one for each of us) before participating in the interviews (see Appendix Three). Only one interviewee, a Faculty Dean, declined to sign the form, and I interpreted his action as a signal that nothing he was to tell me would be confidential.

An additional factor providing protection for individuals was that publications from this thesis are likely to be in journals covering management or higher education issues. As none of the Centres were working in these areas, there seemed little likelihood of other academics, working in the same disciplines as the interviewees, reading the results, and possibly guessing the identity of those concerned. A lockable filing cabinet and password protected computer system met the accepted standards for data security. The several short term research assistants I employed, for transcription or checking purposes, each had access to only small portions of the data (in some cases, published reports) concerning people outside New Zealand. They were also informed of the confidentiality of the material.

The closest comparable qualitative Australian study (of a large, stand-alone research institute) identifies the institute concerned, and the Institute’s Director (Charlesworth et al, 1989). However, in that case, the circumstances were somewhat different; the researchers were invited to undertake the study, and the work of the Institute is discussed throughout the book as an essential part of its life. The current study is different in that its focus is on the Directorship of the Centres, although I found it

somewhat frustrating at times, in writing up, not to be able to discuss the effects of various disciplinary differences. My collaborators, the Directors and their staff, effectively made me a ‘gift’ of their scarcest resource — time — for interviews, checking transcripts, and email discussions. I felt they were willing to do this because of the intrinsic value they accord to research.

Despite assurances of confidentiality of identity, the Directors of the two first stage Centres each asked about the identity of the other Centre with which I was working. It seemed they regarded themselves as insiders in the project, and hence saw no need for confidentiality. However, I explained again, that the identities really were confidential. Another possible explanation for this is that they may have been testing a stranger, to check on the likelihood of their own identity being revealed. One second stage Director was quite prepared to be identified, however I felt this to be inadvisable, because to do so would identify the Australian state in which I conducted the study. The next section covers my experiences in conducting the research.

Conducting the Research

In the earlier sections of this chapter I covered the choices of interpretive approach and case study design for this project, and discussed my treatment of the issues of validity, reliability and ethical conduct. In this section of the chapter my aim is for transparency in how I undertook the research, sharing the decisions made as I progressed, and justifying these so the reader may judge their suitability for himself or herself. The rationale for this is found in Madison (1988, p.28), who discusses the difference between ‘scientific’ method wherein a researcher needs to learn a method of inquiry and simply apply the method accurately (this being the criterion of correctness), and method in the ‘normative’ sense, based on persuasive reasoning. Scientific method, suggests Madison, aims to remove personal, subjective judgments by the inquirer, while the normative sense of method insists on the exercise of judgment and development of interpretation by the researcher, by use of a set of guiding principles [my emphasis]. This contrasts with the following of rules or procedures inherent in a ‘correctly’ applied scientific method. In this thesis, I make my subjective judgments available to the reader, for assessment of their relative merit in the situation studied.

The methods most often used in case study work are interviews, observations and document review, and I made most use of interviews and documents. This design, including seven cases, may be classified as a Type 4, Interview-based design, in Bryman's typology of qualitative organisational research designs. The Type 4 design is described as: "Chief emphasis is on interviews in 6-10 organisations, along with examination of documents. Observation may occur, but if it does occur it tends to be in periods between interviews" (Bryman, 1989, p.152). I collected the data principally during two visits to Australia, a year apart. During each of these visits, of three and four weeks respectively, I was able to concentrate on data collection and reflection, immersing myself in each Centre's circumstances to a considerable extent, because I was away from work and family responsibilities. In the year between visits, I analysed the findings of the first stage and designed the second stage, while continuing in my academic teaching position.

I intended this study's first stage to consist of one exploratory case, firstly as a means of identifying important issues relating to the Director's position to provide a clearer focus for the main investigation, and secondly as a pilot exercise testing the means of doing this. The second stage of the project would comprise cases of a more instrumental nature, to compare the issues I had uncovered and interpretations I had formulated in the exploratory first stage, across different situations. If possible, this first stage should be what Yin calls "the revelatory case" (1989, p.48), following the advice of Stake: "It is often better to learn a lot from an atypical case than a little from a magnificently typical case" (1994, p.43).

Qualitative research is not limited to using qualitative data (Silverman, 1993), and case studies are able to make use of almost any type of evidence, including quantitative data (Yin, 1989). However for a study based in the interpretive approach, I judged it appropriate for quantitative data, where used, to be analysed in a way coherent with the underlying approach, in a descriptive sense. For research Directors, it was reasonable to assume that a variety of background materials for their Centre would exist, including quantitative data. The recent emphasis in Australian higher education on measures of performance, such as numbers and types of publications and numbers of research grants

earned, led me to expect that numerical data of this kind would exist in Centre annual reports or other university documents, as a useful supplement to data gathered face to face. Gaining access to these documents for a Centre would have a number of advantages for an overseas researcher, because the documents would:

- provide a source of preliminary information before my visits to interview Directors and staff;
- prevent waste of precious time, during face to face interviews, in seeking factual detail available elsewhere;
- enable me to show genuine interest in a Director's work through reference to reported items; and
- supplement interview data, providing opportunity for triangulation (Jick, 1979).

Numerous documents were collected from each of the six Centres I eventually visited.

Because of the exploratory nature of the first stage of this study, the interviews with Directors and their staff aimed at providing a balanced and comprehensive set of data. They were to be open-ended, but providing sufficient overlap for me to conduct analysis by comparing different viewpoints on the same topics. I needed flexibility to follow up promising or unforeseen leads, to help identify important incidents or issues. The interview schedule is based on open-ended questions to ensure the same topics were covered at some stage in each interview, by keeping me on track and reducing "the possibility of bias that comes from having different interviews for different people, including [...] obtaining more comprehensive data from certain persons while getting less systematic information from others" (Patton, 1990, p.281). The interview schedules for the first stage, lying somewhere between Patton's classifications of "general interview guide" and "standardized open-ended interview" (1990, p.280), are included in Appendix Four. Directors' schedules differ slightly from those for staff. I also encouraged the Directors to talk about interactions with staff and other groups such as funding bodies, and Centre Advisory Committees.

When interviewing in the first stage I asked for information on two projects; one the interviewee considered very successful and one notably less so, as miniature embedded case studies within each case. I hoped this data might lead to insights on the

way in which multi-disciplinary work was conducted. However, this data was not very rich, and there was not always an overlap with other interviewees' projects, meaning I could not really gain a variety of insights on the same projects. Also, less successful projects were sometimes so because of factors outside the researchers' control. As this was an unsatisfactory part of the investigation in that the required depth was not achieved, I deleted it from the second stage interview schedule.

The related question on research teams also turned out to be largely superfluous. Research teams in Centre A tended to consist of a principal investigator and one or more research assistants, partly because of the separation of the research programme into several distinct sectoral strands. In Centre B, some staff worked collaboratively with others outside the Centre, and others used research assistants for more technical work, because of the nature of the discipline. The research fellows I interviewed were project managers with varying degrees of control over the research assistants (see discussion of Centres A and B, Chapter Four), and the team organisation was related to the disciplines involved. This question was likewise discarded in the second stage.

In the second stage of the project I also removed the question for staff relating to informal leaders, as it was redundant, given their earlier responses. This was replaced with questions for staff, firstly on whether the work of the Directors was inherently divided between different roles, probing for sub-role differences, and secondly, seeking succinct phrases to summarise the Director's approach. Directors were also asked whether, given a choice, they would prefer to manage or to conduct research, to indicate where their current interests lay. The work of Ikenberry and Friedman (1972) was useful in developing the schedule.

To the extent possible in each Centre, I made informal observations of interactions between Directors and staff, mainly by requesting to observe at meetings to contrast my impressions of how he or she acted in practice, compared with interview data.

Selecting Centres: the First Stage

Because of the large numbers of Centres apparently existing in Australian universities (Marsh et al., 1992), and for reasons of logistics and cost, I decided to limit

this investigation to the population comprising Directors of Centres within one Australian state. Australian states act in some ways like separate countries, each with its own state government, different type of local economy influenced by geographical features and natural resources, and mix of bodies funding research in and for that state (this in addition to national funding sources such as the Australian Research Council). While this would limit generalisability of the findings of the study, generalisability was not a prime consideration in this project. It was possible that a geographical limit could reduce some of the inherent variability in Centres, as contexts for their Directors, because some Centres focus their work on their state's natural resources. Reference to the 1992 study by Marsh et al. helped me determine a state with sufficient Centres to generate a reasonable number of Directors from whom to select cases. A number of other Australian states have roughly corresponding numbers and types of universities, and for reasons of confidentiality the selected state is not identified.

Enquiries to the Higher Education Division of the Department of Education, Employment and Training, and to the Australian Vice-Chancellors' Committee, revealed that no comprehensive database of university research Centres existed. This was because research Centres were seen as part of the way in which universities developed their individual research strategies, as autonomous institutions. Accordingly, I requested a list of research Centres from the senior research administrators, that is, the Deputy or Pro Vice-Chancellors (Research), in all universities in the chosen state, after briefly explaining the purpose of the project. These lists were acquired from all except one post-1987 university. The Directors of the Centres identified in this way comprised the pool from which the cases in this study were selected.

The need in the first stage was for a case with intrinsic value (Stake, 1994), that is, one from which a great deal could be learned. The survey conducted by Marsh et al (1992) provided the only overview data on Australian Centres, and I referred to this in developing criteria for selecting an initial Director. The criteria for selection were as follows.

Age: the Centre should have existed for at least 7 or 8 years.

A Director of a Centre of this age would have succeeded in the eyes of the university through adequate capacity to attract funding and generate research outputs, in line with the Centre's objectives. It should have survived at least one round of any review processes likely to disestablish the Centre for failing to meet initial expectations. (Marsh et al. noted that their survey could provide no information on Centres that had been formed prior to 1992, but had since ceased to exist.)

Multi-disciplinarity: The Centre should be engaged in multi-disciplinary or interdisciplinary research.

Centres have been described as providing a means for researchers from different disciplines to work together, bringing varied disciplinary viewpoints to bear on complex problems in a way difficult in traditional university departments (Friedman & Friedman 1985; Ziman, 1994). There appeared to be a chance to examine exactly how this collaboration was effected by Directors of Australian university Centres.

Size: Centres should have a minimum of three or more equivalent full time staff.

Centres should be of a sufficient size to permit interaction between the Director and staff, and to exclude 'letterhead' Centres existing in name only, with the Director as the only member.

Change of Director: if possible, for investigating the effects on Centres of different Directors.

It seemed likely that the influence of different Directors would be reflected in the performance of the Centre. Tracing these effects over time, with the assistance of long-serving staff, appeared likely to provide valuable insights into how differing interpretations of Directorship impacted on the results a Centre achieved.

An ordinary Centre: outside the Research Centres' Program group.

The reason for excluding the Directors of these Centres from the first stage was that the accountability these Directors held for the government funding they received meant such Centres were already regularly reviewed, to ensure the investment was producing desirable results. In addition, a number of the

Directors of the SRCs were included in a study on research productivity (NBEET, 1993). The Directors I wished to learn more about were those in the smaller Centres which appeared to be changing the way in which Australian academic research was increasingly conducted.

In summary, the criteria for selection were:

- Age
- Multi-disciplinary research
- Size
- Possible change of Director, and
- Outside the category of Special Government Funded Centres.

This list is not exhaustive and other criteria are certainly possible, depending on the focus of a particular inquiry. These were however, relatively easily discernible, as well as being justifiable (see above), and I considered they provided a workable basis for finding a suitable pilot Centre.

With these criteria in mind, I approached senior administrative staff in several of the universities which listed substantial numbers of Centres, seeking their help in selecting an appropriate Centre meeting most of the criteria above. One, which I will call Centre A, was suggested to me as being a good example of a successful multi-disciplinary Centre. I attempted to telephone the Director of Centre A, but he was overseas at the time. As my sojourn in Australia was limited to specific weeks, I approached the Director of a second Centre in another university, Centre B, which appeared from its name to be engaging in multi-disciplinary research. Director B agreed to participate in this study, although a little reluctantly. I think he felt the request should not be refused, although he would have preferred not to be asked. This meant that if Director A declined my request, I would still have a Centre in which to conduct my study in the time available. On Director A's return, he agreed to participate, while stressing that he did not see his Centre as a traditional university Centre. He urged me to include another Director and Centre in my research, also, to counteract these factors of difference, although not

providing a real explanation of the differences. I decided to work with both Directors, as this would provide a much richer base for the second stage of the project, and two cases would offer enhanced opportunities to identify major issues, and enable comparisons to be made. Despite my initial plans to include only one Centre Director in the first stage of the study, the size, history and development of these Centres provided fertile ground for examining different ways in which Directors may interpret and enact their role.

Contrary to the experience of many researchers in the discipline of management who seek access to commercial or industrial organisations for research purposes, I had no problems with access to university research sites. This is consistent with the traditional value given to research by academic staff who spend their lives in such pursuits.

Prior to my visit, a follow up letter was sent to each Director, confirming the intention of my proposed study, promising to maintain confidentiality and requesting a copy of each Centre's most recent annual report.

My time in Australia lasted three weeks, and was divided fairly evenly between the two Centres, A and B, because of the need for flexibility regarding appointments. Before my first visit to each Director, I made a thorough study of his Centre's annual report, so that any questions would be appropriate (these first two Directors were both male). While reading these reports helped me become familiar with a number of facts pertaining to the Centres, the impressions I gained by actually visiting were indescribably superior. I realised how bland and lifeless questionnaire data would have been, had I decided to follow such an approach. Because my information about the Centres was limited prior to arriving on campus, the case study protocol I prepared earlier (see Appendix One) acted as a 'rough guide' rather than a detailed 'itinerary', although I managed to collect almost all of the data I set out to acquire.

Directors were interviewed first, prior to speaking at length with their staff. My reasons for interviewing the Directors first were, the courtesy aspect, and so that, as a newcomer to the environment, I would be able to concentrate on the Director's own stance without my attention having been distracted and diluted by discussions with people with other viewpoints. Both Directors requested a summary of the project findings and I

sent them and other interviewees a pre-publication copy of the article published from the first stage of the project, taking note of several comments received. This was effectively the “price” of access to the Centres.

The semi-structured interviews took three hours and two hours respectively for the Directors, and a minimum time of 45 minutes (apart from one secretary) with a selection of staff at different levels within each Centre. Interview time is not always an accurate measure of the value of data, however, because of different rates of speech. All the interviews were tape-recorded, with permission, using a small unobtrusive tape recorder placed on the desk or table. This made the interviewing a fairly relaxed process, and I was able to maintain eye contact most of the time and build a rapport with each person so that my sincere interest in the work of the Centre was, I think, evident. Without the need to take copious notes, I was free to absorb the sense of their remarks and to follow up tactfully on areas that seemed surprising or controversial. In addition, I used the spaces in the interview schedules to note important points, in case the tape recorder should malfunction. While I cannot guarantee I asked all the questions possible, or picked up on every potential point of interest, these interviews were times when I concentrated intensely. In Centre A, I was able to be present during both a meeting of the Director and senior staff, and a social function, prior to undertaking any interviews, but in Centre B, staff meetings were infrequent, and this was not possible.

Both Directors made available to me a variety of documents detailing their Centre’s work and history, which were a valuable contribution to the research. These included annual reports including details of personnel movements and grants obtained, lists of publications, and submissions to review committees. After the first visit to each Director, I wrote notes of the important first impressions I had gained. In my hostel room in the evenings, I listened to the tapes of the day’s interviews till late at night, noting points on which to follow up with other members of staff, and transcribing the two Directors’ interviews (c.13,500 words each). Before I left Australia, I returned these transcripts to them for review, verification and clarification where needed (hoping to receive confirmation within a reasonable time). As it happened, Director A returned his

within three days, but Director B was unable to return his until three months later, due to pressure of work. Only minor grammatical or formatting changes were made.

The temporal boundary of the exploratory cases was defined as the total lifetime of the Centres. Director B was a short term appointee in an older Centre, and once I had an outline of the lengthy history of his Centre, I decided to approach the three prior Centre Directors who were still working locally. As they all agreed to be interviewed, this added considerably to the data gathered for this Centre.

Visits to the two Centres, in different universities, were interspersed over the time of the fieldwork. While this was challenging, the constant contrast between the two Centres, of differences in university ethos, physical surroundings, disciplinary aspects and Directors' personality effects, acted to heighten my sensitivity. In the phase of continual 'newness' the similarities were more striking, the search for structure and commonality more urgent. If the qualitative researcher is the 'instrument' by which data is collected and analysed, this process of alternation represented, in my case, the 'tuning' of the instrument. Eisenhardt refers to a somewhat similar process in her exposition of building theories from case study research, when she writes:

Although a myth surrounding theory building from case studies is that the process is limited by investigators' preconceptions, in fact, just the opposite is true. This constant juxtaposition of conflicting realities tends to "unfreeze" thinking, and so the process has the potential to generate theory with less researcher bias than theory built from incremental studies or armchair, axiomatic deduction (Eisenhardt, 1989, p.547).

When developing the interview schedules, I had decided to aim for a wide cross section of views by approaching those who were likely to provide the most different perceptions, and hoping to triangulate different viewpoints. Therefore, I hoped to include both men and women; older and younger people; those who were comparatively long term employees in addition to those fairly new to the Centre; and staff at different levels of the hierarchy. In Centre B, after examining the annual report, I explained my ideal requirements to the Director and, following his interview, he took me down the passage, introducing me to staff with an explanation of my visit, asking them when they would be available for interview. I later discovered three of the four Senior Research Fellows were all of three years' duration or less, so I had to approach the remaining long term Senior

Research Fellow, to balance out the historical background. My Centre B interviewees were those most heavily involved in the Centre's work.

In Centre A, the Director introduced me at a senior staff meeting, to busy people not previously aware of my visit. Earlier, he had requested I keep the interview times to a minimum, because "every minute of staff time has to be accounted for". For this reason, the minimum number of staff in this Centre were selected to cover my range of diverse ranks and viewpoints. The Director asked the meeting for volunteers, after I had explained my requirements. Some Project Managers had no free time over the next two weeks and suggested others within their groups, and it was some days before I made appointments with six people, including one staff member from each of the major sectors of the research programme, a long term research assistant and the Director's secretary. In this Centre, approximately half the staff were research assistants, many part time, and as annual reports showed, their turnover was high. They also had little direct contact with the Director, so seemed unlikely to provide useful insights. I did interview one who was also a student, having worked there for three years, because I wished to examine the impressions of the Director gathered by someone at the lowest level in the Centre. The others were four research fellows, (two men and two women) one each at Associate Professorial, Senior Research Fellow and Research Fellow levels, and a prior research assistant now a Junior Research Fellow. These interviews all took at least an hour.

I transcribed all the staff interviews over the next two months. Total transcripts for the two Centres were 131 pages of 12 point double spaced text. Doing these transcriptions meant that I 're-lived' the whole fieldwork exercise at a somewhat slower pace. All the transcripts were returned to staff for them to verify, however there was some delay in returning them. In several cases, two reminders were required and up to 10 weeks elapsed before return. The only one not returned was that of the research assistant in Centre B, who left shortly after my visit. A small amount of extra detail on various points was provided, and alterations were minor, except for one exception. This was a former Director of Centre B who regarded his remarks as "too frank" when he read them, and deleted some sections.

A draft of a journal article I wished to publish on preliminary findings of the first stage was sent to all the interviewees. From Centre A, only the Director and the next most senior staff member commented, that I had “captured the Centre very well”. Several Centre B staff disagreed with a small portion describing a person I had not interviewed. This description had been compiled from the comments of a number of co-workers, which they felt to be overly negative. That section of the article was removed prior to submission, and rewritten based on achievements noted in the annual reports. (This article is reproduced in Appendix Six.)

The Second Stage of the Study

Selecting the Directors

While I was in Australia collecting data for the first stage of the project, I wrote to the Directors of all the Centres included in the lists supplied earlier by the universities, explaining my project and requesting copies of their Centres’ annual reports for the past three years. This was to enable me to select the second stage Centres. I considered a review of the Centres’ progress over three years would help assess which Centres were growing, declining, or static, and would provide more information than I had available for my first stage Directors. Replies were eventually received from, or on behalf of, 65 Directors, a response rate of 60 per cent, (although it is not entirely clear whether all the ‘Centres’ listed were active research Centres, and whether the lists were current). In a number of Centres the Directors had changed from those identified on lists. Most, but not all, sent copies of reports. Some did not publish reports and sent other information; only one Director refused outright. Several respondents said their Centre was not functioning because there was currently no Director, or because funding had been withdrawn.

Selection of a set of Directors to compare as collective instrumental cases (Stake, 1994) was problematic. Even within the limits of one Australian state, the diversity of Centres and the range of disciplines they encompassed, their frequently problem-based nature, and my incomplete holdings of reports for all Centres, meant there was no simple logical grouping from which to select Directors for further investigation and comparison. I also hoped to include at least one woman Director in the second stage of this study, to explore any differences in approach. I was uncomfortable with the idea of randomly

selecting a group of Centres to visit, because I could end up attempting to compare the Directors of a very large, well established Centre and a small new one; or attempting to compare three Directors working in 'hard science' areas with one concerned with say, language learning; or ending up with an all male sample; or any one of a number of other not very satisfactory scenarios.

Having undertaken the two first stage cases, I had a much better idea of the amount of work and time involved in this kind of research, and considered that four second stage cases were the maximum number I could reasonably study in a part time doctoral project aimed at conclusion within a few years. The sets of annual reports held showed huge variations in style, format and type of information included. Initially I had thought it might be possible to summarise a few major variables from each of these annual reports to assist in selecting the second stage cases, but often, information on points I considered useful after working with the first stage Directors was provided in an ambiguous manner or not at all. This does not mean the academics or support staff compiling the reports were attempting to mislead the reader, but often they appeared to have no training in accrual accounting, and even within the same university, no guidelines appeared to exist on what should be included in the reports.

For example, a similar total figure for what appeared to be the same external grant would be repeated over two or more years. There was no indication of whether and when the grant monies were paid as progress payments spread over two or more years, and in which year the money was actually received in the Centre, in relation to the date the grant was allocated to the Centre. The reports varied from a few pages stapled together, comprising a simple list of projects currently under way, with maybe a list of staff involved (without indication of whether these staff were employed full time in the Centre or were merely departmental 'associates'), to full commercial style glossy reports. My training as an accountant meant I was fully aware of the difficulties involved in comparing even companies in the same industry sector, from reports compiled to publicly acknowledged standards. In these Centre reports, the standard of information was so variable that an exercise of this kind could not be conducted with any assurance of it

forming a sound basis for comparison. I simply did not trust the data. If I was not to select a sample of Directors randomly, I needed some other selection basis.

Hoping to find some recognisable pattern, I listed the Centres for which I held information in a matrix showing Centres in each different university in each of four Broad Discipline Clusters, that is; Biological (or Natural) Sciences, Physical Sciences, Social Sciences, and Humanities (Blackburn, Behymer & Hall, 1978, p.133). The majority of the Centres fell within the Biological and Physical Sciences clusters.

The matrix showed that five universities were host to 62 Centres. Of these:

- 18 were CRCs, SRCs or KCTRs (grantees of the Research Centres' Program),
- 5 involved two institutions in this state,
- 3 appeared to be embedded within other Centres,
- 3 were linked with Centres in other states,
- 2 appeared to be very loosely attached to their institutions, and I judged them likely to be largely unaffected by political and social influences of the institutional host,
- 2 were only two years old, and
- 17 provided no financial accounts at all, including a group of 9 in one university for which a joint report was received.

These categories were not mutually exclusive. In addition, some Centres had changed status over the past three years, one appeared to have died, one Director would not release reports but conveyed he would talk with me should I visit, and one had joint Directors (a situation I considered unsuitable for this project). I could only conjecture about the situations of the 30 or so Centres whose Directors failed to reply. Possible reasons for the dearth of research into Centres became clearer to me at this stage. Growth, the establishment of new partnerships, and evolutions of past Centres into new forms meant that information became rapidly out of date.

Clarifying the situation of the Centres in this way meant that the pool of possible second stage cases was vastly reduced. One of the critical issues emerging from the two first stage cases was *structure* — the Centre's relationship to its host university. One first

stage Director, 'Arthur', led a very successful Centre, partly because he was free from many of the university responsibilities weighing heavily on the Directors of Centre 'B', and all his energies could be directed to Centre work. I added 'structure' to each entry in the matrix, this usually being stated in the reports. Variants of Centre structure may include Departmental and Faculty Centres, stand-alone department-equivalents, and university Centres. This is in addition to the multi-university Centres. The criteria I aimed to meet in selecting this second group of Directors were:

- the focus of their Centres should have some relationship to a broad disciplinary cluster or theme, to reduce the diversity aspect and aid in comparisons, this being the rationale behind collective case study,
- they should have sufficient staff members to exclude 'letterhead' Centres existing in name only, hence with a minimum of three or more equivalent full time staff, and
- they should have been Directors for preferably five years or more, so that a reasonable history existed for comparison.

From the enhanced matrix (Appendix Five) I was now able to select four Directors, of Centres each connected in a different way to their institution. These Directors were in four different universities and their Centres were all connected, in admittedly somewhat tenuous ways, with one important sector of both social and scientific concern. Two of the Directors were women. One Centre was in the Biological Science cluster, one in the Social Science cluster, and the other two focussed on problems drawing on a range of scientific disciplines to achieve their socially based aims.

Table One shows essential attributes of the four Directors chosen as second stage cases, and of their Centres, some of which became apparent only upon my visit.

Table One: Attributes of Directors, Second Stage

Centre Code	Director's Gender	No. of staff excluding Director*	Centre structure	Years Centre established	University type	Discipline Cluster
C	Female	12	Departmental	8	Old-established	Social
D	Female	13	Faculty	6	Mid-age	Mixed
E	Male	10	Split reporting	8	Technological	Biological
F	Male	1	Split reporting	4	Post-1987	Mixed

* Including part timers. Excludes tenured departmental colleagues if not full time in Centre

While it was possible to select four cases, there was really very little choice because of the factors mentioned above, which meant many Centres were excluded. Because of these restrictions, some compromise was necessary. For example, the Centre I call 'F' had existed for four years, but its Director was more recent (see Chapter Five). With hindsight, clustering Centres around a shared focus of interest did not really reduce the diversity very much, but made it easier for me, as a social scientist, to relate to their aims and understand their concerns than would have been the situation for Centres in say, specialist areas of biology or engineering. This was reasonably important in research using a qualitative approach. There is thus a bias in this study towards Directors of smaller Centres producing well written, comprehensive annual reports, simply because their standard of communication was sufficiently high to enable me to assess their situation.

Collecting the second round of data progressed in a very similar way to the first round, with the same procedures followed. Director 'C' offered me the use of a desk in her Centre as a base during my visit, which I welcomed. This time I asked interviewees to wear a lapel microphone to assist the clarity of recording, as noisy environments were not uncommon. Once again, documents were contributed willingly towards the study. Together with the 17 participants in the first stage, these 27 second stage interviewees provided a total of 44 transcripts. In order to speed up the transcription of 27 interviews, I transcribed only the Directors' interviews and employed research assistants to provide at least a working transcript, for me to fill in the inevitable gaps resulting from acronyms

and accents. I listened to all these tapes once I had the transcripts, and made corrections where needed. As before, all these transcripts were returned to interviewees for confirmation however despite several polite reminders, seven were never returned, including that of Director E. The earliest any transcript was returned from Centre E was six months later, while in Centre C one used conference travel to review his, and another carried hers to and from work daily for several months, before completing the task.

Analysis

Analysis was *abductive* (see Blaikie, 2000, for a formal name for the process I had already undertaken), focussing on the group members' experiences and the issues that were important to them, by way of searching for patterns in the data. Blaikie explains abduction as a strategy that generates social scientific accounts from everyday accounts, in contrast to *induction* as a strategy producing generalisations from data (2000, p.10). Meloy describes this type of analysis as "attend[ing] to the tangents of analysis, letting them play themselves out in order to understand which paths, if any, are worth pursuing" (1994, p.1). In analysing the case materials I first read carefully everything collected on a Centre. As my interviewees were usually confident and experienced speakers, they provided rich texts and as Clark (1998) says, "rushed into analysis" because of the nature of their intellectual training. Each verified, adjusted transcript file (and eventually, the non-returned ones also, assuming the interviewees had no strong objections), was entered to the NUD*IST computer program for qualitative data analysis (see box below). These transcripts, along with my typed observation notes from meetings, formed the electronic part of the project database, along with the Centre annual reports and other documents collected.

Transcripts were coded section by section with at least one relevant code according to the topics, meanings or ideas incorporated. Many sections had multiple codes. Because of the specific context of the different Centres, when coding the second Director's transcript the specific context and nature of that Centre meant some different issues surfaced. Further codes were developed to meet this need. Coding of the remaining former Directors' responses (in Centre B) was completed using the set of combined codes. When working with the staff transcripts, however, even though these

The NUD*IST program

This program, currently in use in over 30 countries, provides a way of organising Non-numerical, Unstructured Data, for Indexing, Searching and Theorising (hence, NUD*IST) in the form of letters, policy documents, interview transcripts and fieldnotes. While it was developed as a tool for assisting theory development in qualitative data analysis, it may also be used simply for organising documents or for content analysis. Any project documents existing as computer files may be entered into a database stored in electronic form.

The program has a number of strengths. One is collation of sections of transcript, coded by the user, into a report which may be viewed on screen or printed out for further coding or other analysis. This greatly assists qualitative researchers, because it does away with the need for photocopying, cutting and pasting sections of transcripts manually. Another feature of the NUD*IST program is its ability to retrieve all occurrences of a specific word or phrase, to order, so references are not overlooked, as may occur in a manual search of many photocopied sheets. Also, the user may record her or his ideas, insights and conclusions in memoranda written into the database. These memoranda may then be coded and included in later searches, along with the original materials, so that project analysis is a cumulative process built around either the researcher's predetermined concepts, or themes emerging from interviews or other data.

The program also has disadvantages. Computer files need to be formatted in a particular way. Coding, either on-screen or on hard copy (for coding on-screen later), and exploration of the reports of coded sections collected at 'nodes' to investigate themes and relationships, take many many hours, although having the advantage of allowing a printed record of the researcher's travail as an 'audit trail' of his or her endeavours. Of course the program will not do the analysis for the researcher as a 'black box', as naive qualitative researchers often believe, and the resulting explanation is limited by the researcher's own ideas, sensitivity to the data and insights gained through intellectual immersion in the project. While the program will search on specific words or phrases, it can search only on text, so it is still necessary for the researcher to interpret and code underlying meanings. As Tesch points out, the program: "does not contain any clue about the intellectual importance of your findings" (Tesch, 1990, p.145).

In this project, NUD*IST was used for initially coding and organising the data, for searching and reporting on the frequency of emerging important ideas, and for displaying in crosstabulated (matrix) form some of the relationships between people and actions. I also printed out topics in report form. The learning stage is time consuming.

were intended as alternative views on Centre dynamics and Directors' ways of working, I found their responses were less complex (although often more detailed) and a simpler

coding system was more appropriate. These two overlapping systems were later combined to include all the codes. Next, the coding on the Directors' transcripts was rechecked to ensure that the developing coding system covered all major themes apparent at this preliminary stage and that the codings were consistent.

This built up a rather surface level initial summary of the attributes of the data I had collected and is reproduced in Appendix Six. Prior to undertaking data collection in the second stage, I developed this analysis of the Directors in the first two Centres to a publishable stage. A copy of the published article is also included in Appendix Six.

After the second stage of data collection, the analysis was refined over the next two years, working in a mode I would call hermeneutic. Tesch describes how early case researchers interpreted their observations "in the very basic sense of reflecting on their data until they achieved a better understanding of what they [the data] meant" (1990, p.69). Campbell, quoted in Yin (1989), compares this reflection to the process of inquiry known as hermeneutics, where separate events are related to the whole 'text' of which they are a part (Polkinghorne, 1983), with the researcher moving from whole to part in consecutive cycles, the process being known as 'the hermeneutic spiral' (Tesch 1990, p.68). Hermeneutic researchers also include in their analyses the historical context of which every experience is a part (Reason & Rowan, 1981, p.132). Although the history of most research Centres in Australia is relatively brief, the instrumentality of such rapid Centre growth in response to changes in government policy was clearly an important factor in the Directors' environment. Certainly, the Directors each had a personal history. My analyses and syntheses used *comparison*, as the major tool. Blaikie suggests that comparison may be seen as "a form of description or as a technique for arriving at [...] *understanding*. [...] comparison is one of the best methods for generating theory" (Blaikie, 2000, p.73). This is where I found the inclusion of as many as seven Directors, and other Commentators, to be of assistance.

The major purpose of an interpretive study is to increase understanding. While undertaking a single case study would have permitted the presentation of more detail in the report, working with more Directors resulted in increased understanding of their lives and meant I could use negative cases to clarify the emerging patterns.

At this stage, it was actually an advantage to be a part time student, because there was more time to mull over the data. The number of different cases I was considering meant it was important to allow for the differences in context of the different host universities, and I found working with printouts easier than working on-screen. Hence I spent a lot of time spiralling between individual paragraphs of text in one transcript and large sections of other transcripts, finding bits of the puzzles to fit together. As I became more familiar with the large amount of material, I coded data in different ways, testing ideas and drawing many relationship diagrams and writing summaries of important points.

The eventual concepts and summaries were developed with the aid of sketches, rather than by developing a tree diagram in NUD*IST, although it was useful to have NUD*IST available as a resource. Over the period of analysis, I sporadically kept a journal of notes reflecting on my data, and possible relationships within it. Rereading this during the final writing of the thesis, I could trace how the analysis changed over time. The decisions taken in the project, discussed above, are summarised below.

Table Two: Rationale for decisions made in the thesis

Decision	Rationale
Limited study to one state.	Efficiency of data collection, and to limit variability.
Developed open-ended interview schedule	To cover the same topics in depth for each interviewee, while providing opportunity for exploring leads as they arise.
Developed criteria for first stage Centre.	Aimed for 'revelatory' intrinsic case. Avoided specially funded Centres.
Decided to include two cases in the first stage.	Better comparison and conclusions possible from two intrinsic cases.
Collected all documents appearing of possible use.	Easier to acquire these when personally in Australia.

Aimed for wide cross-section of interviewees.	Differences in viewpoints to add to richness and breadth of data.
Selected minimum number of participants in Centre A.	Wished not to disrupt work and, once having gained access, to retain goodwill of Director A.
Followed up all past Directors of Centre B.	Actions of past Directors likely to add to explanations of current context.
Observed Directors' behaviour in group.	To reinforce interview impressions and triangulate data.
Deleted article section after participants' comments.	No wish to convey wrong impressions.
Decided against data collection on successful/unsuccessful projects in second stage.	Data not sufficiently rich. Stories too summarised. External factors often influencing lack of project success.
Used first stage findings to frame second stage cases.	Extend and verify conclusions in different contexts.
Selected second stage Centres by purposive means.	Random sample likely to make comparisons more difficult.
Decided to employ transcriptionists	Transcription time is lengthy. I could continue with other parts of this study and make a final check of the drafts.
Conducted analysis hermeneutically, taking time.	Likelihood of better analysis than by less in-depth means.

Classifying Types of Universities

After selecting the Centres and collecting the data, in 1997 I read Marginson's recently published cultural typology of Australian universities. I found this typology useful in my analysis for classifying the institutions hosting Centres. Each host university accordingly bears the name of its type; for example, 'NewUni' for a post-1987 new university. These classifications are explained below and listed in Table Three.

Marginson's Typology of Australian Universities

In a discussion of the effects of increased competition for both students and external funding on the Australian universities, Marginson classifies these institutions into four groups, based on the positional character of the goods produced in higher education. Quoting the ideas of Hirsch, he describes positional goods as “status goods, places in education that provide students with relative advantage in the competition for jobs, income, social standing and prestige” (Marginson, 1997a, p.7). Positional goods, he maintains, are firstly scarce, and secondly, the subject of competition between both students, as consumers, and the institutions providing education. Students seek the limited places available in prestigious universities because alumni of these institutions have a high chance of career success. However, demand for these limited places is always greater than the supply, and top institutions can select their students. High quality in education, argues Marginson, is commonly seen as being “where the status goods are found, rather than status being determined by quality” (1997a, p.7).

The group of old-established Australian universities Marginson calls ‘Sandstones’. The other three groups comprise: ‘Wannabee Sandstones’, younger universities aspiring to the traditional model; ‘Utechs’, with long pre-university histories as Institutes of Technology; and the ‘New unis’, the post-1987 universities originating from former Colleges of Advanced Education, usually merged, to form institutions with the requisite minimum 8,000 equivalent full time students. Table Three shows the major characteristics of each group, with the abbreviation used in this thesis shown in *italics*.

Ramsden has conducted statistical tests using nation wide performance indicator data to test the explanatory power of this typology. His results show the typology to be a robust means of prediction, with research performance the major factor by which the different groups of Australian universities may be distinguished (Ramsden, 1999, p.341), making the typology a very apt one for use in a study of research Centre Directors.

Table Three : Typology of Characteristics of Australian Universities

Sandstone 'Sandstone'	Claims leadership in research, the academic disciplines and professional training. Emphasises cloistered campuses and academic values.
Wannabee Sandstone 'Wannabee'	Makes similar claims to social prestige as do the Sandstones, but with less plausibility and conviction.
Utech 'Utech'	Has long history in technological areas, with strong reputation in business training, the technologies and applied research in industry.
New university 'NewUni'	Emphasises access, teaching quality, customer friendliness and regional factors.

(after Marginson, 1997a)

Summary

Chapter Three has outlined and justified the interpretive research approach adopted in undertaking this qualitative study of research Directors within the context of their Centres. The major qualitative designs of ethnography, grounded theory and case study were reviewed, and case study selected as the design most suited to this project undertaken by a researcher based in another country from the research sites. After examining the various types of case study, I explained the development of a two stage design, using intrinsically oriented cases for exploration in the first stage, and collective, instrumental cases for explanation in the second stage.

Issues of validity and reliability in qualitative work were then discussed, and the procedures undertaken in this study detailed. Relevant ethical issues were identified and discussed, prior to an overview of how I conducted the study and the process used in data collection and analysis. A summary of the decisions I made during the conduct of the project followed, with the reasons behind them, making those decisions transparent and allowing readers to make their own judgments on the underlying rationale. I also

presented a way of classifying the different types of universities, which I use throughout the case reports which follow.

Chapter Four presents the reports on the Directors of the two first stage Centres. These reports show the multi-faceted nature of the work of these Directors and the impact on them of factors outside their Centres.

CHAPTER FOUR

FINDINGS FROM THE FIRST STAGE CASE STUDIES

Outline of the Chapter

In this study of Directorship in Australian university research Centres I studied a total of seven Directors in six research Centres. The Centres were in five different universities in one Australian state, and this chapter presents the findings from the two Centres in stage one. I studied the three Directors in stage one hoping to gain a better understanding of how the Directors, the 'cases', undertook their day to day work. These cases were intrinsic, that is, of interest in themselves (Stake, 1994), because these Directors had obviously enjoyed some success in their Centres, and because they were my introduction to Directorship. At this stage, I had few preconceived ideas about possible issues of importance. These case reports show the variety and complexity of the Directors' role within the very different individual contexts of each of the two Centres. The culture and 'flavour' of these contexts is conveyed by liberal use of the actual words of participants. This is an attempt, at least, at "seeing through the eyes of the people you are studying", which Bryman (1988, p.61) sees as one of the most fundamental characteristics of qualitative research. The major findings from these Directors' cases are summarised below, leading into the case reports; after the reports, I show how these findings frame the more instrumental cases in the second stage.

For reasons of confidentiality, the Directors bear pseudonyms, as do their Centres and their universities. The Australian state in which the study took place remains unidentified. The Centres in the first stage are 'A' and 'B', while those in the second stage are 'C', 'D', 'E' and 'F'. Detail on their specific disciplines is also excluded.

In 1997, after selecting the Centres and collecting the data, I read Marginson's recently published cultural typology of Australian universities: *Sandstones*, *Wannabees*, *Utechs* and *NewUnis*. These classifications were explained in Chapter Three and listed in Table Three, and I use this typology in my case reports for classifying the host institutions

of the Centres; for example, NewUni for a post-1987 new university. Because I found research funding to be so important for Directors, I include an overview of the Australian research funding system as it was revealed during the course of the study. Director 'C' checked my interpretation and confirmed it as fairly accurate.

Research Funding in the Australian Unified National System

When research was funded internally by the universities from their block grants, only one's academic colleagues needed to be satisfied as to the worth of a particular project. With the increasing reliance on external bodies for research funding has come the need to satisfy the requirements of those groups, with their requirements being, more or less, aligned with the interests of those who undertake the research. The external funders exercise influence of varying degrees over the research.

The major sources of external research funding for academic research in Australia in the nineteen-nineties may be loosely classified into the categories of ARC/NHMRC grants; other grants; and contract research. These categories reflect the relative freedom of the researcher to choose or influence the topic, and the extent to which the funding is likely to exceed the direct expenses of the research.

ARC/NHMRC Grants

Grants allocated by the Australian Research Council (ARC) and the National Health and Medical Research Council (NHMRC) are the most competitive, and consequently the most prestigious to obtain. Success rates in the mid nineteen-nineties were low; some 19 - 23 per cent of applications. While the aim of these grants is to fund basic research, the Councils have their stated priorities, meaning that proposals attuned to those priorities have a higher chance of being funded. In this way, influence is exerted on the research. As one Director said: "If you want to do research on ... this and that ... then you have to look up their criteria and think 'Oh, I'll have to twist it round, to make it sound like it's doing this, something quite different', so they have quite a lot of influence on what you do". The existence of a track record of successful, completed research by the principal investigator is crucial. These grants provide no contribution towards the principal investigator's salary and no profit margin, with proposed budgets very often

being underfunded. A trade-off exists here between funding and reputation, the assumption being that those capable of success against such intense competition are indeed top class researchers, who will receive supplementary funds from their institutions, or elsewhere, to enable completion of their work. Directors told me it would be impossible to run a research Centre solely on these grants.

Grants

Statutory foundations and similar bodies provide competitive grants to fund research on specific topics. These grants usually cover expenses of the research, but are less than generous in regard to researchers' salaries. There is often an assumption that the institution to which the researcher is attached will pay the salary. In many cases there is no leeway for a surplus in the sense of a commercial profit, and if projects are finalised under budget, the surplus must be repaid. Some flexibility of topic choice exists, in line with the objectives of the funding body.

Contract research

Contract research operates as a commercial activity. Contracts are often let after calling for tenders for a research project on a topic selected by the funder, usually of an applied nature. Others may be for straight consultancy work; as one Director said, "This type of work is almost not research". The funder may be a State or Federal government Department, industry, commercial or other body. Sometimes these opportunities are advertised in the newspapers, and sometimes research groups with proven track records are approached directly, to tender or to do the work. Contracts permit the making of a profit, but the tenderer needs to keep the price within reasonable limits, for competitive reasons. These profits are often, though not always, available for discretionary use within a Centre, for resources such as equipment purchases or additional staff. Most universities claim a percentage of such profits.

If academics have research expertise and interests that align with the needs of a body funding an applied project, they can sometimes use the project data to develop theoretical contributions to a body of scientific knowledge, in addition to meeting the applied objectives of the funder. On the other hand, as a Director said, there may be political or professional reasons for doing a project, even if profit or theoretical advances

are not forthcoming. Applicants from multi-disciplinary research areas or less established lines of enquiry, may experience funding problems, as their topics may appear to fall outside the funders' defined areas of interest. Small in-house research grants are usually available within institutions, and Centre Directors or their staff may apply for funding from these sources also. However as Centres are set up to demonstrate the capacity of an institution's academics to win external grants against competition, showing excellence based ostensibly on objective peer review, in-house funding does not carry much kudos. Table Four summarises the characteristics of different types of research funding.

Table Four: Attributes of Types of Research Funding

Type of funding and provider	Freedom of researcher to select topic	Competition factor	Capacity for surplus(profit)
Federal government grants: ARC, NHMRC	High, but moderated by stated priorities	Very high 1 in 4, or 1 in 5 success rate	Nil. Need extra support from host university
Grants from statutory foundations	Moderate (restricted by funder's aims).	Dependent on number of other capable research groups, but usually high.	Often nil. Sometimes surplus may be retained.
Contracts from private (industry) firms or state government Departments	Negligible. Can sometimes negotiate to conduct extra, more academic work.	Largely dependent on past associations and track record. On occasion, may be limited or non-existent.	Expected.

The historical perspective on the funding situation is that in 1988, only ten Australian universities had significant research libraries and nine had two-thirds of all the research students (Karmel, 1992). The former CAE sector received some funding for provision of research infrastructure, but otherwise, research grants were distributed on the

basis of quality of proposal and track record. In 1992, ninety per cent of ARC project funding went to pre-1987 universities (Sandstones and Wannabees). The funds for infrastructure and the more recent Research Quantum funds were linked to competitive research performance, with those who succeeded being rewarded and those who failed, penalised (Marginson, 1997).

Objective of the First Stage of the Study

The objective of the first stage of the project was to familiarise myself with the work of several research Directors, and to identify important contextual factors impacting on how they interpreted and enacted their role. These findings would then enable me to select a further group of Centres for the second stage of the project, to re-examine and refine the first stage findings while still remaining open to uncovering new issues that might emerge. I selected the first stage Centres because they had existed for at least seven years, which I took to indicate reasonable stability; were multi-disciplinary, an important characteristic noted by Ikenberry and Friedman (1972); and were seen by their institutions as successful in obtaining grants and demonstrating publication productivity (see Chapter Three, Selection of First Stage Centres, above). Both Centres were in Sandstones, as most Centres in other institutions, being less than seven years old, were formed since the introduction of the Unified National System.

A second objective of the first stage was as to test the suitability of the questions in my interview schedules, prior to further data collection (Yin, 1989, p.80). The first stage interview schedule proved adequate for generating useful conversations about everyday aspects of life in Centres, and I made few changes in the second stage. Because this was a qualitative study, the interview schedules were only a general guide for conducting the semi-structured interviews, and I followed up interesting ideas and incidents as they arose.

Findings from the first stage cases

The first stage cases were of great intrinsic value, for me, because this was my introduction to ‘life in a research Centre’ — or at least, life in these two research Centres. Universities are very different from polytechnics. My one year appointment in another Australian university, prior to this thesis work, was in some ways unrepresentative of academic life because I was in a staff development unit. The case reports include a number of basic details about the Centres, and while these details may be of small interest to those familiar with Centres, to me as a newcomer they were fascinating. I consider their inclusion adds authenticity to the accounts.

Aligned with my stated research question, *How do university research Centre Directors interpret and enact their role?* the reports show how these Directors worked the layers of their micro and macro contexts. As discussed in Chapter Two I define *interpretation* as ‘the way in which a Director understands or thinks about his or her role’, and *enactment* as ‘what she or he does in daily life to “play out” the role’.

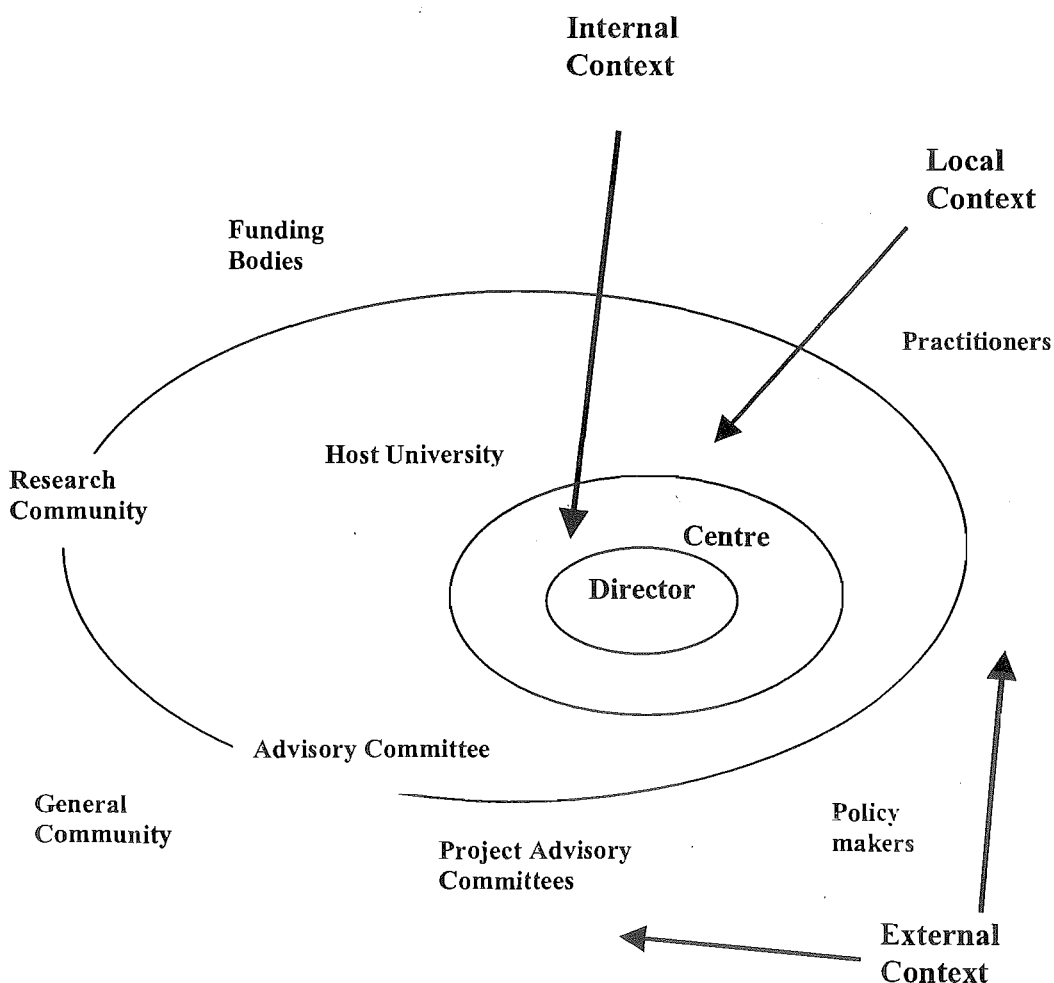
Context

Contexts significantly influence the way in which roles are enacted, (see discussion in Weick, 1979). Katz and Kahn maintain that organisations are open systems and “Every open system is affected by the environment in which it functions and with which it engages in energetic exchange.” (1978, p.533). The macro and micro environments within which Directors work can be seen as concentric layers of context, namely *external* (outside the university), *local* (inside the host university) and *internal* (inside the Centre). The Directors interacted with a number of different groups within these contextual layers. These, I call the Centre’s ‘Communities of Interest’ (Communities). In a study set solely within a business context, these groups might be called ‘stakeholders’.

The external context includes funding bodies; policy makers who may use the research findings in their work; practitioners who may implement the research findings; Centre Advisory Committees including both external members and academics; the research community of other academics, and researchers outside universities, who assess and use the Centre’s research; and the general community who, on occasion, look to

Centre Directors as a source of expertise. The local context consists of academics and administrators in the host university. Their influence upon the Director and his or her staff varies with the way the Centre is connected to the university. Finally, the Director and his or her colleagues form an internal context within the separate entity of his or her Centre. Directors influence and are influenced by those in these varied contexts, as I show in the Interpretation and Enactment sections of these reports. Figure Two pictures the layers of context and how I visualise the location of the various Communities within them.

**Figure One: A research Centre Director's
Communities of Interest**



Major issues — first stage

Three major issues emerged from the detailed analysis of the first stage fieldwork for the Directors of Centres A and B. These issues are summarised below, prior to the more detailed description which follows. These three Directors headed very different Centres, meaning the contrasts were vivid and provided a good basis for comparison.

1. **Directorship is complex and multi-faceted.** The umbrella term ‘Director’ covers a variety of aspects, appearing to depend on the particular Community with whom they interact. Early in the analysis I originally called these aspects ‘Research Leader’, ‘Manager’, and ‘Entrepreneur’, but these classifications changed after undertaking the second stage analysis. What can be said is that the position of Director is multi-faceted and demanding.
2. **The structural relationship of a Centre to its host university impacted on the expectations held of a Director.** The different ways in which a Centre is connected with its host institution affects the demands on the Director as a member of the university community, making the Directorship more complex. Both this factor, and the quality of the personal relationships between the Director, and immediate superiors, impacted on the time and opportunity the Director could spend developing his or her role.
3. **The sources and consistency of a Centre’s funding influenced the Director’s work.** The activities of each Director and his staff were influenced by the number and attributes of the sources from which funding was obtained, and the consistency, if any, of the funding from specific sources.

“Arthur”: The Director of an Applied Centre in a Sandstone University

History of the Centre

Arthur, the first of the Stage One cases, was Director of Centre A in a ‘Sandstone’ university (Marginson, 1997). The inaugural Director, Arthur still headed this seven year old unit which the Sandstone hierarchy saw as very successful, firstly because of the good reputation its staff and their research had earned, both internationally and in Australia, and secondly because of its sustained growth rate, made possible through success in attracting external funding. The research in Centre A focussed on an area of specific community problems, and its official objectives aimed at increasing knowledge to achieve practical improvements. Arthur classified the research as sitting between basic research and the practitioners who implement useful ideas for the overall benefit of the community, with sometimes life-enhancing effects. There is a distinctly altruistic aim associated with the focus, because of the clear benefits which may accrue to society.

Arthur became Director after a 25 year career in government research and policy-oriented institutions, where he held senior positions with authority for several hundred staff and multi-million dollar budgets: “a bureaucrat”, as he said. Sandstone policy was that Centre Directors were not concurrently Heads of Department, thus freeing them from much of the copious paperwork and numerous meetings associated with those positions. They were able to concentrate on achieving the objectives of their Centres. The spread of expertise in Centre A meant its staff had disciplinary connections with several faculties, and because Arthur and the founding sponsors insisted it should operate independently of the Faculty system, it was classed as a university Centre. Over its seven year life Centre A had grown from an initial staff of three to nearly forty people, some part time. Excluding Arthur, all the staff were on contracts varying with the length of their projects, these ranging from one month contracts for some research assistants (RAs) to one or two years for Senior Research Fellows (SRFs).

The majority of the SRFs, who managed projects in their own areas of expertise, had originally worked in different professional practice areas, rather than as academics. Their original training covered a variety of disciplines, including social sciences such as psychology and industrial relations, as well as engineering, computing, statistics and

some health related areas. One researcher described the Centre as “a number of fragmented groups. They tend to work completely independently; completely different styles of reporting; completely different styles of project operation and management, depending on who you talk to”. The Centre’s 1994 Annual Report described it as “a truly multidisciplinary Centre”. Staff often worked in multidisciplinary teams, in contrast to the way in which Departmental academics sometimes collaborate on discipline related projects. As one Research Fellow explained: “This place probably sounds like Alice in Wonderland to you — everything’s upside down! Because I’m a sociologist, you don’t need another one in the team — that would be redundant”.

In view of the small amount of research conducted in the problem areas prior to the Centre’s inception, its work filled an empty market niche, and applications of the research results within the community were often visible and comparatively rapid, in both policy and practical areas. This provided excellent motivation for the staff, with one Research Fellow enthusiastically relating: “Oh it’s interesting! Challenging! I hate being bored! And we have the chance to do worthwhile projects. Pretty good to be here!”

Context of Centre A

This section of the case report covers the external and local contexts within which Arthur worked. Because of the independent position of Centre A outside any Faculty, the local context of relationships within Sandstone, had less impact on Arthur as Director than on the other Directors in this study. The Centre’s internal context, affected by the way in which Arthur worked, is described in the sections on Interpretation and Enactment.

External context

I found the major influences in the external context of Centre A to be:

- * the group of sponsors who had pledged the support of their several institutions for the research Arthur and his colleagues conducted;
- * other actual and potential funding bodies; and
- * the national and international research communities undertaking related work, and the practitioners who could implement the research results for community improvement.

Relationships with sponsors When Centre A was established, a group of sponsor bodies had become involved. While their support was limited to an annual commitment of funds (rather than the three year pledge Arthur continually attempted to elicit from them), this had been consistent over the years, indicating that the sponsors were satisfied with the Centre's results. In return for their funding commitment, sponsors decided which of the proposed projects they would fund. From time to time, they also funded other projects. To help the sponsors "keep track of where their money goes" they had established a Management Committee, including several academics, which also provided substantial support for Arthur. Sponsors often nominated their representatives onto Project Advisory Committees, and in this way were kept informed of progress, had input, and were able to approach their own boards for extra money should unforeseen events delay a project's progress. Arthur chaired most of these Advisory Committees "to ensure the formal lines of communication between the sponsors and our staff are open. I try to make sure the sponsors don't put too much pressure on my staff, and at the same time I sometimes have to take the sponsors' side with staff and say 'Well, if they want it, we should really try and give it to them'".

Some of the sponsors' initial representatives were Arthur's former colleagues, who trusted his ability to use their funds effectively. Recently, those people had been replaced by strangers and more formal relationships, and these new people sought greater accountability for their funds. Arthur was frustrated that most sponsors had not yet provided multi-year pledges so he could "get a program of research going, instead of just project-based research. Writing proposals is a very intense nerve-wracking exercise. You don't get the best research from people if they're working that way".

Relationships with other actual and potential funding bodies In the Centre's first year of operation the core sponsors' funds accounted for 80 per cent of total funding, but seven years later the Centre's annual report showed those funds comprising less than 30 per cent of the total. While the core sponsors' funds provided a semi-stable base for the Centre's work, in order to grow, staff needed other sources of funding. One Project Manager saw the research varying along "a continuum for funded work, between the two

extremes of firstly, the purely academic where academics do the research with little interaction with the funders, and with perhaps, little concern about direct application of the results”, and the other extreme of contract research, where the funders “exercise a great deal more control — it’s a much different animal”. Arthur explained that the three major strands of interest in the Centre had developed partly because “everything is in different sectors rather than disciplines. Different sectors fund research in entirely different ways and so we suffer from ... these different standards”. One interest sector in the Centre could not secure funding from contracts or sponsorship, and relied solely on grant monies, meaning little profit could be earned for contingencies. Because many of the Centre’s staff had non-academic backgrounds, the prestigious Australian Research Council/ National Health and Medical Research Council (ARC/NHMRC) grants were not usually sought, because researchers did not have the requisite track record. These grants were also unsuited to a Centre with only contract staff, as they provided no salary component for the principal investigator.

Project Managers working in the other sectors submitted competitive bids for projects put out to tender. Despite Centre A being effectively subsidised by Sandstone (through supply of premises, accounting, and personnel services), Arthur told me “we have this convention that we don’t undercut the competition on rates. We pitch it at commercial rates to get more of the pickings”. Researchers funded by grants were unable to make such profits, so: “We start off with an inbuilt tension because we’re in different businesses. Some of the Project Managers clash because they have different world views.” Staff also proactively sought funding from bodies with a vested interest in the potential results of research for which they had individually developed proposals. “That’s often based”, said Arthur, “on what we really want to do in research, where we go out and try to find a sponsor. Quite a lot of the projects in our Annual Report we’ve initiated and persuaded people to sponsor, mainly from government or semi-government organisations”.

Undertaking such projects developed a relationship between the Centre and those organisations, effectively growing the market for the Centre’s work. Bodies funding contract research, however, usually kept fairly close oversight of the work: “The people

who are supplying the funding have a lot of interest in the project, and so consequently they want a lot of input into the design and ... you never have the freedom to ... I think it's a matter really of a compromise between science and politics. Most of the work we do is like that" (Project Manager).

Relationships with national and international communities Staff in Centre A consistently presented their research results at seminars, conferences and invited presentations, both locally and elsewhere in Australia and overseas. Arthur's secretary conveyed that "some of the staff here are world-renowned". With no central pool of funding in the Centre, conference attendance was restricted by the possibility of squeezing the funding from grants or the profits from a Project Manager's prior contracts. After the first research quantum monies had recently flowed to the Centre, Arthur was able to give Project Managers limited discretionary finance for expenses of this kind.

Arthur and his staff collaborated with a number of state and national organisations, and had developed international links in North America, Europe and other places. Arthur described a very successful project conducted for the Federal Government: "The Minister liked it so much the rules went in and Australia got all these [really good measures benefiting the community]. Canberra [the Federal Government Department involved] had to reprint the report twice, and the US [industry] representative commented, 'We ought to do things the same way here!' The Project Manager involved has since developed a continuing line of work in consequence".

Local context

Relationships within the university These relationships were simplified because of the Centre's comparative independence. While Arthur named as his academic mentor the Centre's inaugural Management Committee chair, a Sandstone professor, he reported formally to another senior member of the Sandstone hierarchy, who was now chairing the Management Committee. This was "a good relationship" with meetings every two or three weeks. Arthur said he had been surprised to find "almost as much bureaucracy and red tape in the university administration as in government Departments", however his outside experience enabled him "to find ways around the university's

administrative structures so we could spend most of our time doing research, which is what we are here for”.

Questioned about whether the Centre supervised PhD students, Arthur explained that at that stage it was co-supervision, as the Centre did not have the right to grant degrees. Negotiations with the university to enable independent supervision had commenced, but the academic procedures were slow, and despite the Centre’s seven year existence, “the university has to learn to trust us”. While students were not actively sought, post-graduates with genuine interest in one of the areas of the Centre’s work were accepted: “It’s a sort of reflection on us”, said Arthur. While a handful of tenured academic staff collaborated fairly regularly in the Centre’s research, and some peer reviewed articles were published, the traditional academic values of good teaching and academic publication were largely irrelevant for this Centre’s staff. “Very vigorous debate”, had always occurred among them, some considering their work should be more theoretical and leading to understanding of basic principles. However their only real option, stressed Arthur, was to accept the Centre’s niche position as a provider of applied research, “because that’s our source of funding — we can’t exist without doing that”.

Internal context

The Director’s relationships in the internal context of Centre A are covered in the following sections describing Arthur’s interpretation and enactment of his role.

Arthur’s interpretation of his role

A brisk and organised person, Arthur had a clear interpretation of his role as “providing a suitable environment for good people to do high quality research and be recognised for it”, referring to “the CEO of IBM” as the author of this phrase. A research Centre should also, he said, ideally be taking on new PhD graduates and “turning them into top class researchers in their own right”, which had occurred with one Project Manager. Questioned on the need for a Director to be actively involved in research, he said “I think it’s important to have been an active researcher so you understand the problems and the frustrations ... and the joys that go with research. It’s probably important to be active, but I’m not sure it’s always possible in a large Centre”. When Centre A consisted of a smaller group of ten to twelve people, Arthur had worked with

others on the research projects. Because of the cramped premises the group then occupied, the climate was more relaxed and communication more frequent and informal. Staff wanting to discuss points about their research did so with any of the staff who were there at the time, and this sharing was possible because: “We seemed to have less time pressures”. At that stage, Arthur used matrix management, assigning a pool of researchers to those who managed the projects, and “it was my job to make sure there were other projects for them to go to when the first one finished”, an ongoing responsibility he now shared with Project Managers.

As the Centre grew, core research staff with interests in different sectors formed their own groups, creating below Arthur a second tier of autonomous Project Managers. Although Arthur considered “the flatter the organisation the better”, after seven years, two levels of Project Managers now existed between him and the Research Assistants. Arthur was now actively involved in only a few projects of special interest. His high profile in the policy and practitioner community meant those people knew and trusted him, and supported him after his move to Centre A. His network of contacts had proved invaluable in establishing the Centre. As one Research Fellow said: “People all know Arthur. And he’s very conscious of making a good impression on the people who pay the bills”.

Arthur explained that the major difference between his own, and more typical university research Centres, was its reduced emphasis on refereed publications, an intentional strategy. The Annual Reports showed one of the Centre’s objectives as conducting operations in “semi-commercial mode”. The different model under which the Centre operated, said Arthur, was effective in achieving its aims: “We believe you can make things happen in the real world by working with agencies responsible for change, and the important thing that happens on a much shorter time scale is the report. Whether it’s peer reviewed or not, is not necessarily an important criterion”. Other reasons for this lack of emphasis on peer reviewed publication were apparent; the applied nature of many projects, the opportunity for career progress independent of the academic emphasis on peer-reviewed publications, and the relentless demand for Project Managers to meet project deadlines, and secure new funding so the Centre could survive. Rewriting of

research results in academic format took time from activities with higher priority, with one Research Fellow explaining: “A Centre report is nowhere near as rigorous in its preparation as a peer-reviewed journal article”. However, the report of the recent review of Centre A had recommended an increase in its peer reviewed publications.

In implementing the Centre’s strategy, Arthur saw himself as responsible for liaison with the funding bodies, encouraging them to progress the research results a further stage forward, and this generated much of his current work. “I’m a strong believer that it’s not enough to produce a formal publication and leave it there. You need to persuade people who can use your research results to do so.” He undertook this task by “selling the results”. “Selling” was used here in the sense of promoting ideas arising from the research to the funders, and interacting with them to answer their questions about the results. In answer to my question about where he learned the things most useful to him in his current position, he declared:

I had the misfortune of working for two real nasty pieces of work, and I would never want to be like that to people working for me, so you learn from those people. I worked for people who have had full trust in me, and [in turn] you trust that people will do their best work for you. I don’t think you learn that much from management courses. I think you learn through being exposed to good and bad managers.

Apart from the projects undertaken for the core group of sponsor bodies, Arthur expected his staff to seek funding for individually generated projects, and his five senior staff had each grown their own areas: “If you want to recruit and support 12 people, I won’t stop you!”. The Project Managers organised their projects as they saw fit, “as long as they meet academic standards and the funders are happy”. If Arthur sensed staff resistance to planned changes, he let the topic drop unless it recurred, then used a different approach: “When you’ve headed up your own organisation for a fair while you’re no longer on an ego trip; you don’t do things to establish your own authority, you only do things that have to be done”. Once, he had been outvoted by the Project Managers’ group: “People understood he wasn’t pleased with the outcome of the vote, but he accepted it” (SRF). Staff could say “No” to requests made of them, but as a Project Manager reflected: “If Arthur was really concerned it be done the way it was proposed, he would probably dig in and make sure it happened, but you might have to fight fairly hard with a few to make it

happen that way, if they didn't want to do it. Arthur would have to decide if it was worth his while to dig in".

Centre A had grown rapidly, although Arthur viewed this as "not a primary ambition, but the consequence of continuing to find work for the people we've got". A Project Manager explained that, on occasion, small jobs in the category of "not really of sufficient scientific or research merit" might be taken on "for staff continuity", because certain staff had experience needed for a bigger project in a few months' time. Arthur related that: "We had to say to Project Managers, 'Don't go for any more projects than you can cope with, with the people you've got', because we haven't got the space for any more". While he had explained to the review committee that he didn't support further growth, the view of the Sandstone DVC (Research) was that "if you're getting customers knocking at your door, you shouldn't knock them back".

Sandstone sought to develop visible links with its local community, and because of Arthur's demonstrated success in building such links, and in generating external monies to finance the Centre's growth, the university hierarchy seemed agreeable for the Centre to continue operating on the outskirts of academia. Despite some funding and programme frustrations, Arthur regarded the creative process of developing and managing a large research Centre as very satisfying, describing his role as "the greatest job I've ever had!".

Arthur's enactment of his role

Charging out time: the reality of contract research Although all of the researchers in the Centres I visited were under obvious pressure from imminent deadlines, the sense of pressure in Centre A was unique. An acute awareness of time pervaded the Centre. Arthur asked me, prior to my interviews with staff, if I could keep these as brief as possible because all time had to be accounted for and charged out to projects. No other Director requested this. (However, although I estimated an hour for his own interview, he happily spoke for well over two hours, till I ceased questioning.) Arthur presented me with a very positive and assured picture of Centre A, but for most of its staff, the reality was one of high stress and scrambling to meet deadlines, albeit with satisfying results.

Very often, the essential project or associated administrative work took more than the 35 chargeable hours in a week. The Project Managers had been working 60 hours a week for some months, which all agreed was “not good”, and Arthur was seeking ways to reduce their workload, mindful of the existing time and monetary constraints. Although this topic arose at the Project Managers’ meeting I attended, the urgency of other matters meant that staff had no discretionary time available even to meet and discuss possible solutions. All four Project Managers I interviewed perceived stress levels to be “quite high”, although some had developed coping strategies, such as shifting work between their RAs. Stress was seen as a function of personality, and differences in attitude existed. “There’s that lack of security. It’s particularly high stress for me because I take responsibility for funding for the rest of the group. The stress is balanced by the very rewarding nature of the work”, said a Project Manager with a dozen staff. “It’s a rather ... difficult ... working environment for the Project Managers, at least”, said another. That person told me a story about “executive monkeys, where one monkey could exercise control by pressing a bar, and the other one couldn’t. The monkey with no control developed an ulcer”. She concluded: “That draws a lot of parallels with some organisations. It appears most successful for the person at the top, because they’ve got more control”. I inferred that “some organisations” included Centre A.

Working down to a contract price could mean cutting corners: “sometimes, contract work gets done to meet the budget, so the quality is not as good as it could be. I’m not saying it’s unacceptable ... we put it out at a level that’s acceptable to the person funding it, but often the researcher and other members of the staff feel it’s not a good example of academic excellence, to a certain extent” (Project Manager).

Consciousness of the “charging out” factor also affected general communication: “It would take too long to have adequate communication. You can’t have the luxury of groups of people sitting around talking about a project, it’s more like producing widgets [here] than producing something academic. Research is an industry” (Research Fellow). Lower level staff in Centre A were dissatisfied with communication: “It’s quite common not to know things you’re supposed to know. Communications break down regularly”. A further outcome of the charging aspect was that it mitigated against any kind of worktime

celebration. “You think ‘What am I going to charge this to?’ if we get together for a lunch” (Project Manager). Celebrations were rare, except for one group who “make an excuse to have a social function every now and then” according to its female Project Manager. “The rest of the Centre seems less interested in that kind of social contact, but it’s my view that this kind of communication is very important”. In this section of currently fifteen people, only two or three had left during the past seven years.

Being a Project Manager: “You’ve Just Got to Do it Yourself” Much of the research work was done by research assistants (RAs) reporting to Project Managers handling four to six or more projects. In 1994, Centre A employed more RAs, many casual or part time, than the total of all other Centre staff. “Their pay is poor. They can earn about \$10,000 more a year working for the Government” (Project Manager) and it seemed that Project Managers varied in their ability to handle staff. There was no guarantee the Project Managers, not always SRFs, would have training or experience in managing, as distinct from doing, research; Arthur saw these people as “just people who are good at the research they’re doing”. As one Project Manager confirmed: “No, there’s no training on becoming a Project Manager, you’ve just got to do it yourself. Osmosis”. Vertical conflict between staff was usually caused by “poor budgeting and communication to RAs of the time budgeted for certain functions. Some people are better budgeters and managers than others” (Project Manager). If an RA’s work was unsatisfactory, the remedy this person suggested was to “try and offload them onto another Project Manager. There’s always the option of not renewing their contract. Some Project Managers will, some won’t, give RAs direct feedback on their work”.

Despite a general intention that RAs retained over several projects should be encouraged to study for higher qualifications, the workload of full time staff was heavy. One Research Fellow in his mid-twenties, who had finished writing up a thesis while employed at the Centre, compared the work in Centre A with his prior employment: “the expectations of activity and the workload are usually so high here you can’t [undertake further studies]. You just go home exhausted. There is no way I could contemplate working even more when I got home”. Arthur acknowledged the lack of career prospects

for RAs, although they were consistently recognised through co-authorship of reports, where they had “done most of the work”.

Several years earlier, some of the RAs had felt their skills were not being properly valued. “Although they had a representative at the Project Managers’ meetings right from the very beginning” said Arthur, “they felt they were being trodden on and used up, and possibly I may have been responsible for that, putting too much emphasis on getting the work done, and not enough on human values, and on making sure they felt part of the place”. He explained that Project Managers were responsible for the welfare and training of their RAs, and he didn’t interact with them, because of the way the Centre’s hierarchy had developed. On becoming aware of this situation, he said, “the Project Managers and I shared a few common ideas, and heard the RAs’ concerns when we could, and we’ve managed to fix nearly all of their concerns”. However at my visit, some RAs were dissatisfied with their stationary pay rate over three years, yet hesitated to raise this issue with the Director. Another considered that at staff appraisal interviews: “RAs are worried about what they say because they are talking to their Project Managers, so they end up saying nothing for fear of retribution at contract renewal time”.

Meeting the dual objectives of generating at least sufficient work for survival, and actually delivering results on time, was a continuing difficulty for Project Managers. Arthur explained that “sometimes people are late and the sponsors are starting to get restive, and I say ‘How can we help you get this done?’ and the Project Managers see I’m embarrassed about having to tell the sponsors the project will be another few months yet. It’s no good trying to do anything else [to them]. They’re probably juggling too many projects”.

A Hierarchy of Decision Making The Centre’s growth meant Arthur delegated as much as possible to his senior Project Managers. In the next year a small group of staff at Associate Professor and Senior Research Fellow levels were to form the new Senior Managers’ group, a decision/policy making group. “After you get up to about ten or twelve it’s time to bring in another layer. As we’ve got more and more Project Managers, we’re needing to change the structure of the [Senior Managers’] group. I’m taking this year to do it, through a process of gradualism” (Arthur). A variety of different

decision making mechanisms existed in the Centre. Some were individual decisions, where Project Managers might first discuss a decision with project staff. Specific committees were formed for particular needs, such as allocation of space when moving premises. At the Project Managers' meeting I attended, Arthur threw staff the opportunity of picking up the task of deputising for him during a forthcoming three day absence. Eventually one senior person accepted the task. Several other times during the same meeting, he called for volunteers; again, there were eventual, somewhat guarded offers of help later in the month. I later asked Arthur whether staff workloads affected volunteering, and he told me that "if no-one had volunteered in another couple more seconds I would have turned to someone and said 'Would you do it?' ". Table Five displays the variety of ways decisions were made in Centre A.

Table Five: Decision Making Variety in Centre A

Decision mode	People involved	Decision Style	Example of decision
Individual	Director	Delegation	When a task is required and volunteers are not forthcoming.
	Project manager	Autonomy	Project decisions under their individual control, often after team input (but the PM's immediate manager should be informed of the decision, "in case someone has a violent objection")
	Project managers	Volunteering	One-off situations such as being Acting Director, or being interviewed by visiting researchers
Small group	Director plus 3 most senior staff	Consensus	Policy for overall distribution of Centre resources.
	Specific committee	Consensus or Vote	To allocate space when the Centre relocated.
Medium group	Director plus most Project Managers plus representatives of junior and support staff (12-15 people)	Consensus or Vote	General policy formulation, funding and administrative arrangements.

Enactment as “filtering”

Several colleagues commented on the bureaucratic style Arthur adopted in directing the Centre; he “did not employ modern management techniques, and the place would be a lot different if he wasn’t here” (RF). The two female Project Managers I interviewed each wished to confirm: “How confidential is this interview?” when asked to comment on their Director’s strengths, from which I inferred that while they had some dissatisfactions, they were also aware that open criticism would be tactically unwise. Arthur’s own comments about his focus on getting the work done and neglecting human values (see section on *Being a Project Manager*, above) identify a very task oriented Director.

Arthur maintained control over the quality of research done in the Centre by acting as a *filter* for the Centre’s communication links with the sponsors (external context), the Management Committee (external-local context), and Sandstone management, through his reporting relationship (local context). He filtered final project reports leaving the Centre and research proposals submitted for core, and most non-core funding. In this way he influenced the work of the staff to an extent they saw as greater than he did (or wished to admit he did). He got his own way most of the time: “Don’t underestimate it. You actually have a lot of influence on what the Centre does”, staff had told him, in regard to the programme the core sponsors supported. Some examples of the workings of this filtering process between the Centre’s layers of context follow.

Internal-Local filtering — funding Each year, the core sponsors, through Management Committee, decided which of the research proposals put forward from the Centre they would fund. One Project Manager described how Arthur would ask staff for suggestions for new projects, but when these were produced, would say: “There’s far too many here for the Committee to cope with, we’ll reduce them and give them a smaller choice”. It had become very clear that “it was basically Arthur’s idea of whether a project was useful or not, whether it got into the group from which the core sponsors would select” (RF). When the Project Managers pointed this out to Arthur, he said “Oh, I never do that!”, with the Project Managers replying “Oh, you always do that!”. In addition, filtering occurred through “the extent of support he gives a particular project at the

Committee level [which] is where he exercises that sort of selection of what they think about". While staff suggestions were not actually "chopped off" (RF), funding was less likely if Arthur failed to "push them"(RF) to the sponsors, who obviously interpreted Arthur's strong support for specific projects to mean "Those must be the good ones" (RF), and made their funding decisions accordingly. Project Managers who attended Committee meetings to speak to their proposals had observed this happening. Two levels of filtering occurred here, prior to and during the Committee meetings.

Arthur's version of this filtering was to explain that "I have done a little bit of selection so the program we put up for discussion is only 20 to 30 per cent bigger than the funds available, therefore most of those projects get funded. I did a little bit of making sure everybody had something". He mentioned that for the first time that year some sponsors agreed to a multi-year commitment, and from the larger [unfiltered] number of proposals put forward, "one person got nothing, one person only got one project. So the selection system was not matching what our staff can do. You can't have that". We can see here a range of realities, from staff disappointment at having some ideas arbitrarily discarded, to the Director's aim of managing to secure some work for all: "Logicalising the situation", as one Research Fellow said.

The phrase "*You can't have that*" enlightens us as to Arthur's interpretation of how he should enact his role. He saw himself with responsibility for intervening in the funds allocation process, to enable the different sections of the Centre to continue their work, while simultaneously satisfying the core sponsors by maintaining the myth of their autonomy in selecting appropriate projects. A large part of Arthur's role was thus enacted by attempts to match the supply of, and demand for, the Centre's research capability. Without his intervention, imbalances might occur, as had happened in the past year.

Internal-local funding — promotions Arthur identified the most important factor in the Centre's success as: "being able to attract and retain high quality, dedicated staff. And that leads on to the ability to continue to attract research funds. But it all starts and ends with staff". Senior staff in Centre A could not access the university's promotion system but, because of Arthur's efforts, had been able to move up the salary scale more

rapidly than did most tenured academics, “which compensates ... for the lack of security” (Arthur). Although pay rates of research staff were aligned with the levels of the standard university scale for Levels B through D (Lecturer through Associate Professor), their contract situation meant they could be employed at “whatever level you believe is appropriate”, with each new contract. Arthur explained that his Senior Manager needed to approve such movements from one salary level to another. I asked if the Senior Manager would know the staff involved sufficiently, to make a judgment, and Arthur said: “He might know some of them but not necessarily the quality of their work. I guess, probably not. He sort of makes a case based on performance, but he wouldn’t really know them individually”. Here, Arthur acted as a filter by proactively providing appropriate information to his Manager to engineer effective promotions for his staff (the money was provided by the Centre, not the university). His recommendations meant staff received increased compensation and status, despite their lack of tenure and of the publication records featuring so strongly in university promotions. This support for staff, however, appeared to stop above RA level (see section *Being a Project Manager* above), because of a simple supply and demand relationship. RAs were reasonably easy to replace by new graduates, should they leave. In contrast, it was difficult to get experienced mid-range staff in their thirties, because of their customary family responsibilities and consequent need for security.

Internal-External filtering — information Undertaking his delegated responsibility from Management Committee, Arthur reviewed all final reports prior to their submission, and also most of the grant and contract proposals. This effectively filtered the information being channelled from staff to the funders, before it left the Centre. While he often provided feedback such as “Good job!” on the reports, occasionally it was necessary to comment “You can’t say that!” regarding politically sensitive matters. Some sponsors sought pre-final drafts of reports, and would sometimes request sections be rephrased. “Then we have to find a way to say what we really want to say. We insist on the freedom to publish, sometimes after an elapsed period” (Arthur). This was another example of negotiated filtering of information, and one of the major ways in which Arthur exercised control over the quality of work in Centre A.

As a further example, when invited to membership of an important state policy making body, he could provide those decision makers with the results of relevant pilot projects, “as they were being compiled”, which resulted in state-wide community improvements. Without his access to this group, this as yet unpublished information would not have been accessible to influence policy.

Local-External filtering — funding By proactive approaches to other funders, Arthur was able to manoeuvre funding to more staff projects from core funds, even after the Committee’s annual decision making round. He would approach bodies in the industry known to have a vested interest in the outcome of specific projects the sponsors had already approved, suggesting these bodies also contribute funds towards the work. On occasion, one of the core sponsors’ representatives would accompany Arthur to meet these third parties, lending support to the negotiations. In this way he secured joint funding for good work. When this could be arranged, the released core funds were then filtered back in support of other Centre proposals which had initially missed selection.

Enactment as control and culture

Several staff discussed the approval process for reports in a way that illuminated Arthur’s contribution to the Centre’s culture. A senior Project Manager mentioned “the expectations the Director created in the minds of people”. Although Arthur said he currently had little direct influence on the research work, being no longer closely involved in conducting the research, his expectations were seen to influence staff behaviour in their day to day project management. Despite his not spending much time with the staff, they were:

sort of mindful all the time of what he says and the kind of discussion you might have with him if something goes ... in an unexpected direction, or when he reviews the final report. I suppose people anticipate the sorts of things he’s going to be concerned about, so you try to address things so you’ll be able to handle that final approval process well. You’re prepared to address the concerns likely to be raised. Or else you’ve had jobs with him before, so he doesn’t have to say “Well, you’ve been deficient here...”. (Project Manager)

Arthur communicated these concerns principally through occasional discussions over a fairly lengthy period, although the concerns were also in evidence at the Project Managers’ meeting I attended.

Funding as an influence on the research programme

The most striking feature emerging during the interviews and their analysis was the constant use of the words “funding”, “budget”, “grants”, “contracts” and “profit” in responses to *questions that were not about money*. A search in NUD*IST of the interviews from Centre A revealed that 15 per cent of all text units contained these words. I had expected the research itself would have taken priority in people’s minds. However all activity in the Centre depended on the the need to acquire and eke out funds, to cover research expenses. As an outsider, I seemed more aware of the funding|budget|grants|contracts|profits repetition than the insiders, with their incessant focus on money as a ‘necessary but not sufficient’ component of research. The short term funding available to the Centre meant that Arthur’s greatest frustration, in a position with which he was otherwise enamoured, was the difficulty of developing a programme of research in place of the current project-oriented agenda, where two years was seen as long term.

Summary: Director A

Arthur, as Director of Centre A, headed an outwardly very successful Centre built on a semi-secure base of funding from core sponsors. He had a clear interpretation of his role as providing a suitable environment for good people to do high quality work and be appropriately recognised. Consequently he focussed on attracting good staff, sometimes initially through secondments, and worked hard to obtain rewards for them. The consistency of sponsorship, to date, provided staff with some work and security while they sought contract and grant funding to conduct other research. Proactive approaches were often made to potential funding bodies with a vested interest in project results, as a strategy to enlarge the market for the Centre’s work. Arthur obviously enjoyed his job as Director, but as quoted above, “It appears most successful for the person at the top, because they’ve got more control” (Project Manager).

Communication suffered because of the pace of life in the Centre, with Arthur’s focus being on outputs and outcomes, rather than on personal relationships. Centre A was successful due to Arthur’s efforts in attracting funding and his astute management of external relationships, and to the dedication of hardworking, capable, senior and intermediate staff who found fulfillment in working towards the Centre’s aims. Arthur

considered training or mentoring for Project Managers unnecessary (“We’re not experiencing any problems so it’s probably all right.”), which probably contributed to the high levels of stress most Project Managers and their Research Assistants experienced. The altruistic nature of the Centre’s research counteracted the stress of tight timelines and budgets, to some extent.

Conclusion: Director A

My research question sought understanding of how Directors interpret and enact their role, in an everyday sense. It became clear as the analysis progressed that the Director’s role was broad and multi-faceted. In Centre A, the prior achievements and reputation of the Director in his particular field meant he was ideally suited to lead such an applied research Centre, although the reality of life within the Centre was somewhat different from the picture he presented to outsiders such as myself. Acquisition of funding was a major part of his own work and that of many colleagues, to the detriment of time spent on research.

The Director’s political awareness was also a major factor in Centre A’s success. “The reality is ... support for the Centre, and its continuance, depends on the quality of the work you do, the relevance, and your ability to attract outside people’s interest. There isn’t the reputation of an academic Department where you can fall back on your teaching experience or whatever, if the research program falls apart” (Project Manager). Arthur using filtering tactics as a means of control both in his liaisons with current and potential funders, policy makers, and practitioners in the Centre’s external layers of context, and with staff and hierarchy in the Centre and the university.

Questioned on Arthur’s strengths, one Project Manager indicated:

He’s not ... self-serving, in the sense that academics usually see their responsibility as being to develop themselves. He’s committed to helping the community through our research. And if he makes a decision it’s not because it’s the best for Arthur, it’s because it’s the best for the Centre; I don’t think any of us would disagree with that.

The next section of this chapter comprises reports on the Directors of Centre B, the second and third cases. The objective of these first stage cases was to examine individual situations for their intrinsic value, as part of my initial exploration of life in Centres. The history of Centre B meant it was very different from Centre A, as the emerging themes show. Once again I have organised the case reports around the layers of external, local and internal context.

“Barry” and “Bernard”: The Transitory Directors of a Faculty Centre in a Sandstone University

Overview of the Case

In Centre B, my conversation with the current Director, Bernard, quickly showed that, apart from that of the inaugural Director some years earlier, the role of Director in this Centre was not “the greatest job” any of its several Directors ever had. They were, in fact, surrounded by continuing hostility and dissension, as they struggled firstly, to keep the Centre in existence, and secondly, with an inbuilt tension between attracting external funds and generating high level academic output befitting a university Centre. A full historical case study of the Directors of this Centre, alone, would provide sufficient material for a doctoral thesis, excluding consideration of other Centres’ Directors. Once this became clear, however, it seemed an ideal opportunity to compare the effects of different Directors within the same Centre. In this case report, I therefore treat the Centre as the ‘case’ with, for reasons of time and accessibility, only two of its Directors — ‘Bernard’ and ‘Barry’ — featuring as embedded cases. In this report ‘the Centre’ or ‘Centre B’ is reified, using authorial licence, because of its existence as an entity spanning the term of a number of different Directors.

Bernard invited me into his office, took a brief glance at the letter I had sent him describing the objectives of my project, sat down and launched into a torrent of words. I sat down also and, seeing he was not about to pause, got out the tape recorder, turned it on and put it on the table between us. It took the equivalent of seven pages of transcript before I could intersperse some of my questions into this flow of words. After emphasising that “Running a research Centre is a very difficult job!” he related the

history of the Centre, non-stop. This history is covered briefly below before the examination of critical issues and how Barry and Bernard confronted these.

History of Centre 'B'

Centre B was the longest established of any in my study, and its researchers focussed principally on one of the applied social sciences, although some work was also done in another social science area. It was located in a 'Sandstone' university (Marginson, 1977), and enjoyed a good reputation generated by its inaugural Director, who had made important contributions to Australian society. The Centre, having been a substantial operation during the early part of its life, operated effectively as a separate Department in its Faculty. As Director One was unavailable, his description is compiled from the contributions of the staff who worked with him, and from archives.

Director One

Director One (D-One) came from Europe to lead Centre B, which was established to undertake applied research, and he developed a high profile in both academia and the local community, partly as a result of national projects he undertook. His good work earned the Centre a high reputation. D-One thought research in his discipline should focus on practical ways to help people, and his persuasive manner generated support for Centre B from a number of funders. Most of the research projects undertaken enjoyed shared sponsorship, and the sponsors were presented with preliminary results in sponsors' meetings. D-One was described as "very demanding to work for ... but very fair", and "genuinely enthusiastic, with a strong dry sense of humour". He followed an open door policy, and insisted on all staff sharing morning tea to encourage a free flow of ideas. The Centre flourished during his nine year tenure, having nearly 50 staff at D-One's retirement.

Director Two

Director Two (D-Two) had worked in Centre B for some years with D-One, and he continued operating in a similar way, judging this to be a formula for success: "We did all we were doing before, only better". D-Two excelled in marketing and promoting the Centre and was an excellent advocate, continuing to involve and liaise with a number of financial sponsors who backed projects formulated by Centre staff. Unlike D-One, D-

Two was not a former academic, coming from a senior government position. Opinion was divided regarding his strength in the research areas, and the Centre's past annual reports certainly showed his publications to be somewhat sparse. D-Two was "much less demanding to work for", and also followed an open door policy, although he "didn't recall many people coming through that door". (This comment is reflected in the remark of a current staff member that "I think if nobody ever turned up and wanted to discuss work with you, you'd probably get the idea they didn't think you were worth talking to".) He used a consensual style of operation and regarded the research projects as belonging to the Centre community and the sponsors. Given the story related in Vignette 4.1, his acceptance by colleagues appears limited.

Vignette 4.1

D-Two: We had an opportunity to move from this building to a pair of houses, and I couldn't convince the staff that that was a good thing to do. They thought they were going to be isolated, so ... we didn't move. They had two floors of this building and they wanted to stay, even though they were overflowing and it was crowded, so that's what we did. My wish didn't prevail.

Interviewer: And you didn't just say "We're going to move!"?

D-Two: No, no, I lost that battle. We had plans, we'd inspected the building, we had all our computer and telephone lines in ... and they wouldn't move!

Interviewer: Would you do anything differently if that happened again?

D-Two: No, I don't think so. We all sort of owned the projects collectively. I don't think I would have said we were going to move regardless of what all the rest of them said. We actually voted on that one. I don't think we did anything unless we had a fairly strong consensus on what we should do.

This incident may be compared with Arthur, in Centre A, agreeing on one occasion to follow the majority's decision. In Arthur's case, however, decision making was shared with staff and structured in a number of different ways they all understood. Preparations

for a move would never have gone ahead in Centre A if the decision to move was not finalised.

D-Two trusted staff to work steadily in their project teams. He managed by setting meeting dates with the sponsors during the year, at which staff reported progress: “These meetings were set in a regular pattern during the year - a whole year’s program of meetings. Once you’ve got that in place management isn’t all that difficult in a sense”. Management, said D-Two, “was more managing the ship against the external buffets rather than the staff inside the place”. A researcher who joined the Centre during D-Two’s tenure considered it to be “unmanageable; there were 50 people here, and it was growing beyond its ideal size”. Staffing numbers grew slightly during D-Two’s tenure.

At that stage, difficulties began to occur within the university. Centre staff did no teaching, and Departmental academics in the Faculty resented the apparent freedom of the Centre staff and the increasingly applied nature of the work they did: “They were teaching, and they thought we had all the time and money to research, which is what they would do with their spare time if they had it” (D-Two). Attention was also drawn to the dearth of refereed journal articles produced by the Centre. D-Two, however, persisted on his course: “We decided we were going to make some impact in the real world, rather than just landmark articles in journals few people would read, [...] looking at public accountability for our dollars”. Further problems occurred in having staff reappointed on three year contracts. “There were some awful battles I had to fight with the university”, said D-Two, “more often than I should”. Most importantly, there were university concerns that sponsors’ influence, which was aligned largely with a particular political view, was impacting unduly on the work of the Centre. Its lack of peer reviewed articles meant that academic endorsement of its work was not occurring.

D-Two was not renewed in the position, nor others in his group appointed as Director, because they “did not have the academic credentials to actually win the position” (D-Three). One former colleague suggested that success in the context of the Centre involved “handling the politics”, by satisfying both commercial and academic communities. D-Two, he indicated, “couldn’t quite handle the politics - he didn’t understand them”.

Director Three

Apparently under pressure from the then Dean of Faculty, described as “a very strong, power-hungry man” (SRF), Sandstone hierarchy appointed as Director Three, Barry, an established academic with a strong theoretical background, “to force academic respectability on the Centre” (former colleague, SRF). Barry’s work adopted a different theoretical view from that of another academic, Dr ‘Y’, who was leading much of the applied contract work in the Centre. Dr Y had limited publications, meaning his work was not being exposed to the critique involved in the usual peer review process. Barry explained that a vital factor in his appointment as Director was the assurance he gave that the Centre’s academic work would be published in traditional journals. In this way he appeased the qualms of the Dean and other hierarchy about Centre B’s future direction.

Barry, who had academic management experience in a traditional department elsewhere, regarded the Director’s job as “a big challenge, given all the politics of the appointment”. Shortly after his arrival, Dr Y and a large group of his colleagues left the Centre to work elsewhere, meaning its staff was suddenly reduced by more than half. The sponsors, largely state-based and not supportive of Barry’s approach, continued to support Dr Y and his group, which meant Centre B’s funding base was also substantially reduced. With Dr Y’s departure, Barry found himself needing to “somehow, raise a million dollars a year from various commercial activities. We were trying to be academics and at the same time, be immediately relevant to the community”.

The only way Barry could generate such funding was by undertaking contract research, using particular methodologies developed within his research group. This was supplemented by a small amount from on-going services the Centre provided, and the sale of publications to the general community. The effort required to attract such funding, in what was becoming an increasingly competitive market, meant Barry and his team, some of whom followed him from his previous institution, had minimal time to continue the ground breaking academic research comprising their major interest. Over his term, it became increasingly difficult to document this substantial and developing work, so that at contract renewal time, Barry was extremely frustrated over his inability to publish as intended.

In attempts to ease the pressure on finance and time, “so we could really make our stuff available to the rest of the world”, he wrote applications for major government grants when these were available under the Research Centres’ Program. Sandstone ranked the various applications internally, according to the priorities of the hierarchy, and Barry bitterly resented the fact that his applications were never ranked sufficiently highly to be included in those eventually submitted for consideration: “That was the main reason we left Sandstone, because I didn’t think they supported our applications well enough. We were never ranked sufficiently highly. We were always ranked below the science activities, and I became very angry, as I thought our record deserved ranking at a higher level...” (Barry moved to Sandstone from a professorial position at another university.).

He saw the potential outcomes of his research as often of greater benefit than those of other projects with stronger internal support. Because of the increasingly unsupportive attitude of the Faculty and other hierarchy over the years, Barry adopted an aggressive approach, in what had become a hostile environment focussed strongly on disciplines other than his own, fighting obnoxiously for the share of resources he felt his group deserved: “I was a very difficult Director”. Eventually, he arranged to move his core team to another institution willing to provide a larger funding base and “warm, enthusiastic and public support”.

Over the next five years prior to my visit, the Centre had two interim Directors, (one twice), and another Director who left prior to expiry of his contract. The Academic Profile for the recent Centre review described this as a period of “great turbulence” (1995, p.7). The expense involved in final payments to Barry and the staff departing with him was substantial, and this, plus the loss of almost all senior staff able to attract research funding, placed the Centre in a precarious financial situation. Four years later, its future was still in doubt. While an interim Director, D-Four, was appointed on Barry’s departure, delays in selecting and appointing a new permanent Director and awaiting his arrival meant the departure of this interim Director a year later, to follow other interests. The Faculty Dean, Bernard, then acted as interim Director for several months.

Director Four

Director Four (D-Four) was appointed for a short period as a “caretaker” Director. After Barry’s departure the Centre was transferred under the administration of the Faculty, rather than retaining its formerly separate existence. D-Four, having applied for the Director’s position, was keen that the Centre maintain its independent existence as a Department. Various informants supplied me with different versions of what occurred during this time, or glossed over events in D-Four’s term, and because this was a matter of sensitive internal politics, further inquiry would probably have been unrewarding. As these events were somewhat peripheral to the major objective of my study, I did not pursue the issues. While the Centre retained its independence, funding from the Faculty has since then reduced sharply each year.

D-Four was not appointed as Director, and his developing interests in other directions drew his attention away from his caretaking role in Centre B. “He was not exactly sure of his future, so he didn’t actually do a lot of things for the Centre” said one colleague. External funding earned by the Centre during his term of office was only 40 per cent of the previous year’s total. The ongoing debt to the university covering the final payments to Barry and his staff still existed, and despite fewer staff, expenditure levels remained high, resulting in an operating loss. “The Centre sort of drifted” (Bernard).

Director Five

Director Five (D-Five) declined, through his secretary, to be interviewed for this project, although some limited email discussion took place between us, as I attempted to round out information gleaned from his former colleagues and the Centre’s annual reports, to reduce possible bias. This meant I had a restricted view of his tenure, compared with the perceptions I have of other Directors who spoke directly with me. One can speculate on D-Five’s reasons for refusing an interview, but presumably this was because his time in the Centre had unpleasant connotations.

D-Five saw his role as “attempting to point the herd roughly west” (D-Five) and he replaced the existing research objectives in the Centre’s annual reports with a new, extremely broad theme. He was a very “person-oriented” Director who attempted to build morale among the staff: “He never liked to have his door closed. He was quite ...

interested in his [research] staff and making sure they were happy with their environment and their work [...] and were getting paid appropriately. [...] They were very impressed by that, I think”(RA). Described as “a very emotional person” (SRF), he encouraged staff to persevere in applying for grants, and “put effort into those in trouble [that is, those “chosen against” (D-Four), when Barry moved]. As a person-oriented Director he had a good effect; he would make the staff feel secure and that was important at various times” (SRF). He introduced birthday celebrations and included the non-academic support staff in Centre meetings, with all contributing to discussion (horrifying the status conscious academics outside the Centre) (SRF). This “created quite a community atmosphere in the place” (RA). He liaised with people from the minor research discipline on which the Centre focussed, and undertook frequent speaking engagements outside the university.

Partly due to the slow reporting capacity of the university’s financial systems, D-Five was not fully aware of the Centre’s financial situation, or its ongoing debt, until some months after arrival. The situation as he saw it was: “a brownfield site, rather than a greenfield site”. He employed capable new staff to revitalise the Centre, but as some months elapsed before some of those people acquired grants, cash flow problems were exacerbated. It was suggested he let personal relationships influence the way he acted in the Director’s role, and once “having got to know [the support staff left behind by Barry], could not face sacking them” (SRF). His employment of four seconded Senior Research Fellows reinforces this idea; those staff had positions to return to, should the Centre retrench.

D-Five also changed the presentation of the Centre’s annual financial reports from their traditional cash basis to an accrual basis, so the monies earned matched the timing of the actual work funded. In the past, the Centre had reported “grants attracted for work continuing in the next year” offset against “this year’s expenditure”, which presented the Centre’s financial situation as adequate. There was of course then strong pressure on Directors to attract “next year’s grants”, to remain solvent. Under accrual accounting, matching “expenditure” against the grants gained to fund that expenditure showed the true situation; the Centre was insolvent. This revised presentation “shocked” the

university hierarchy (D-Five), and, while more honest, politically disadvantaged the Centre by making its financial position appear suddenly much worse.

The increasingly competitive market for work in the Centre's major discipline meant continuing difficulties in attracting funding, with only a 25 per cent success rate in D-Five's first full year. He did attract some useful sponsorship through the clustering of staff into conceptual 'mini-Centres' which could be promoted to sponsors with associated interests, hence providing a small consistent support base. Bernard considered D-Five "had a hard job!" to raise funding, with other staff considering his work came to fruition only after his departure. D-Four explained that "After two years of battling, D-Five managed to get the V-C to reduce the ongoing debt, so Centre B could start to grow", a major contribution to its future. However after an illness, D-Five resigned for a position outside academia, generating some resentment among staff for leaving them leaderless in a difficult world. It seems possible that such battles were too psychologically taxing for someone who placed such a high value, and expended so much energy, on emotional support for his colleagues. As in Barry's situation, the emotional deficiency in the local Sandstone climate may have proved more exacting for D-Five than did the financial deficit.

All the research staff with whom I spoke were employed during the terms of both D-Five and D-Six. They enjoyed their work, relishing the intellectual discussion, shared problem solving, and collaboration with congenial colleagues that their jobs provided; the thought of the Centre closing because of its financial difficulties was demoralising.

Director Six

Bernard, D-Six, was currently the Centre's interim Director. No longer Dean, he was in charge of Centre B awaiting the arrival of its new Director. Bernard had watched, and one must assume contributed to, the varying fortunes of Centre B over a decade he spent elsewhere in the Faculty. As Dean during D-Three's term, D-Four's term, and part of D-Five's term, he appeared to feel responsible for the situation in which the Centre now found itself: "I felt I had to do it [the Director's job], and if I didn't, and it fell into another hole like the last time [D-Four's term], the Centre wouldn't survive". Although not mentioning this during the interview, Bernard later told me the Centre had been under

threat of closure after D-Five resigned, because of the deficits run over the past four years. Bernard stressed that he interpreted his current role in the Centre as “the austerity manager”, to bring it back to a healthy financial position. He did not apply for the Director’s position, “mainly because it’s 80 per cent administration and fundraising, and you’re lucky to spend 20 per cent of your time on research”. Research was now his major priority, to continue building the impressive reputation he had earned earlier in his career.

It transpired that Bernard had concentrated on reducing expense and building research excellence during the year. As he already held a tenured position at Sandstone, and because the Director’s position was unfilled that year, the saving was effectively the Director’s salary. He described himself as “a cheap Director”, with a smaller salary loading than some other Directors. Other reductions in expense included attempting to manage with fewer support staff. “Because I was only an interim Director I didn’t want to fire them”, however several had left and been replaced with “more productive people”. A departing secretary had also not been replaced for some months: “I had to type all my own correspondence!” he related.

Bernard appeared driven to succeed, claiming to have the highest productivity of any Centre staff member during the past year “and so I should, because I’m the most senior, and I’m paid the most”. He explained that all others were on contracts, and he had “slightly varied” the salary loadings paid to research staff that year, no doubt reflecting effort. “We want everybody to be productive, and one way to make them productive is to make them untenured. That’s to make sure that people don’t take life easy, in a research only job. [...] To maintain high research productivity year after year is very difficult. Some people burn out, some lose interest ...”. While many research staff in other Centres were also on contract, this was the only time I heard this rationale expressed directly.

Fortunately, the ebb and flow of grant and contract funding had favoured Centre B that year. As one researcher said: “My normal success rate for tenders is one in three ... or maybe one in four ... so we always tender for a large number of projects, and it just so happens we were particularly successful last year, and almost all the projects we tendered for, we got, which made life very difficult, because we ended up with a lot more work than we could cope with”. This circumstance had undoubtedly helped the Centre, and

Bernard was confident of achieving his target of getting it “back into the black”. Having conveyed this skeleton history of Centre B to me, he concluded: “That’s a bare-all open kind of history. We don’t tell the world we’ve written off thousands of dollars of debt, or how severe the leadership problems have been, and how traumatic it was each time we had to change Directors - a problem slightly like succession to the royalty, posing all sorts of problems. Every one of these transitions has been difficult”.

External and local contexts of Centre B

The brief history of Centre B in the previous section was written from the Directors’ personal viewpoints, supported by quotations of their colleagues. The relationships each Director maintained with those in the Centre’s varied Communities of Interest differed according to the orientation and interpersonal skills of each. As for Arthur in Centre A, factors in Centre B’s external and local context exerted a major influence on these Directors, as the next section shows.

External context

Relationships with funding bodies The majority of the Centre’s research funds had always come from outside, but during the decade prior to my visit, Directors Three, Four, Five, and now Six, faced increasing competition from other university Centres in their discipline and from private consultancies. Bernard explained: “There are private consulting firms, some of them good, who can do that [consulting type] work as well as we could”. The Centre’s Profile document records that “Income for the Centre is principally generated by senior staff. Hence, the number of senior staff is critical to the Centre’s performance” (1995, p.7). Just prior to Barry’s departure, half the Centre’s staff held appointments at Senior Research Fellow to Professorial level. After Barry and his group left, this proportion dropped to a quarter, and five years later, it was just returning to 50 per cent. This factor contributed strongly to the “resentment” felt at Sandstone after Barry’s departure, because the concentration of expertise and the “fee-earners” were gone; the university’s ‘investment’ in the Centre was not going to provide a return. The absence of staff who could attract research funds meant that output from the Centre could (and did) decline considerably, reducing the prestige Sandstone gained by association.

Competent, innovative researchers are not always effective salespeople. As one researcher said: “We’re not great salesmen of research, in fact we’re not very good at it at all. It’s something we don’t like doing. They tend to get [Directors] who have contacts, who are commercially realistic. Barry was probably the only one who wasn’t commercially realistic, [although] he was able to commercialise aspects of his own research”. Barry maintained the Centre in this way, with the majority of funds coming from consultancies and publication sales. Competitive grants never accounted for more than 40 per cent of Centre B’s income in any year during his term. His academic research, the mainstay of the research programme, required up to date equipment and a research team. Local funders had withdrawn their support upon Barry’s arrival, and this support stayed with Dr Y in his new situation. Eventually Barry obtained funding from the Federal Government, but he considered that some, at least, of the university hierarchy were discontented with the absence of local money. His attempts to secure large scale funding were stymied by the priorities of Sandstone’s academics, in the main not social scientists, who refused to rank Barry’s proposals highly enough for them to be considered by the outside final selection committee: “We weren’t able to beat that culture. Those big grants always depend on university support and we never did rank very high at Sandstone” (Barry). However given that most grants made in the various Research Centres’ programmes are to Centres with a ‘hard’ scientific focus, it is uncertain whether Barry would indeed have succeeded in obtaining one of these, even with institutional support.

Some sponsorship obtained by D-Five for some of the Centre’s regular activities was withdrawn. With effort, this had been replaced, providing at least some consistency for the Centre. Several other grants, including some in the ARC/NHMRC category, were eventually achieved in D-Five’s time.

D-Six, Bernard, tended to rely on his own track record and contacts when applying for grants. He had continued to publish during his term as Dean, and his particular speciality opened up areas of funding not available to other Centre staff. He explained that: “Tenders are offered at absurdly low prices, and we often do things because they’re interesting, or they cultivate relations with a government Department, and

lose money on them, which means you've got to make it up somewhere else, and that's damn near impossible!". Despite the Centre's advantages of good staff and good track records, he considered: "It's a grim business. It goes down to politics now, for both Government grants and private sector".

The market for the Centre's research had changed from substantial state support in D-Two's time, (with a suspicion of political impact upon the research) to reliance on D-Three's developments to satisfy a consultancy market during his term. After his departure D-Five attempted to rebuild markets for a Centre deprived of its "principal human capital, its research program and its client base" (Annual Report, Centre B, 1993), in a fiercely competitive environment in which D-Six and other staff had enjoyed more recent success.

Relationships with national and international Communities Barry and his colleagues often hosted overseas academic visitors to the Centre, and the annual report publications lists show that a number of them attended national and international conferences each year. There was no mention of shortage of funds for travel of this kind. The purpose of their Centre and the applied nature of the work meant many of their findings related to Australia, sometimes a disadvantage for publishing in international journals. It also meant the international community was of less importance compared to some other Centres. Bernard did some work with senior colleagues in Sandstone and other universities and travelled overseas regularly.

Relationships with the Advisory Committee In Barry's time, half of this Committee's large membership comprised academics from the Centre's Faculty and other faculties. Barry described the Committee's reaction when he was unable to complete all the planned activities he put forward each six months, "because the realities of the physical and commercial world are that you can't always tell what you're going to be doing. If I fell short, all hell would break loose!". He sometimes omitted intended items from his proposed activity lists, to supplement the results achieved, if other things proved impossible. This may often have been necessary, because a colleague told me that in Barry's time, "deadlines were never met". Bernard described how Barry would be

overruled at Advisory Committee, having fallen out “immediately” with several members. The problem as Bernard saw it was:

There’s a bitter history of conflict on the Advisory Committee. All they do is fight with us and tell us what to do. Advisory Committees don’t work well unless there’s a close interest between those on the Committee and members of the Centre. Otherwise they can’t give you advice; they don’t know much about the contract work we do; by and large they don’t help us get contracts, with notable exceptions.

In Bernard’s time three quarters of the membership comprised outsiders, and other related difficulties are discussed below, under Multi-disciplinarity.

Difficulty of tracing the impact of results While the Centre’s research had the potential to contribute to society in important and far-reaching ways, mainly through policy input (and had already done so), tracing the actual effect of specific research results was not always possible. As far as influencing policy went, the Centre’s research was “often just one of a lot of resources thrown at a problem. It would be unusual to see your ideas changing the world, six months later” (Research Fellow). Feedback for the staff was sometimes received through occasional reports in the press, or when citations of work were made. The altruistic factor noted in Centre A was less prominent in Centre B.

Local context

The Vice-Chancellor / Faculty / Centre triangle Sandstone’s current policy on research Centres decreed they must be located in a Department, which had not always been the case. Bernard explained that sometimes Centres had existed outside Departments or Faculties, and while they originally thrived, “a lot of them got into trouble, and before you knew it, the university had half a million dollars of debt from some stupid Director”. Experiences of this kind appeared to have motivated stricter institutional control.

In the Faculty housing Centre B, staff of the teaching Departments had, over the past decade or so, carried heavier and heavier workloads because of rapid student growth as the change took place from ‘elite’ to ‘mass’ higher education in Australia. Hostility existed between those Departments and the Centre. As Barry said:

There was always jealousy; the Centre people appeared to be having a good time. We didn't have any undergraduate teaching, and we seemed to be making lots of money. You don't get much personal benefit; people didn't seem to understand we were just paid ordinary salaries. As we always seemed able to hire someone we appeared to be funded much more lavishly than anyone else. But we worked very hard for it.

Originally, the Sandstone central administration directly funded five research positions in Centre B. About the time of D-Two and D-Three, Commonwealth (national) funding for universities changed, to cater for "planned growth in higher education [...] to take account of unmet student demand" (DEET, 1993, p.80), which was no doubt an influence on the actions of the Sandstone hierarchy. Funding for those research positions was delegated to the Faculty and subsequently, four of the five positions were transformed into teaching positions in Departments. By the end of Barry's term, he alone was funded by the Faculty. Vignette 4.2 describes how this occurred. This was one way in which the teaching Department destabilised the Centre, throwing doubt on its future. Had the Department succeeded in having Centre B regraded, becoming a Departmental Centre totally under Faculty control, its Director would have lost all financial authority and associated status, in a university where; "there is a strong feeling that a Head of Department actually has more authority than the Dean".

Vignette 4.2

The university support was devolved to the Faculty. It used to be financed separately, directly to [fund] certain positions. The Faculty, as a teaching group, didn't really want other independent groups doing research. They felt they could do the research if they only had the money, so they ... slowly took the positions and converted them into teaching positions. While all the governments want more students flowing through the place, they don't want to pay, so they get higher student-staff ratios by giving some money and saying "you must take this many students". So staff just have to work harder for the same dollars, and our five Centre positions became very attractive to the Departmental staff as they worked harder and harder and harder.

[A case of] "Why can't we grab those positions back?" I say, grab them, because they were designated research positions ... now, they're teaching positions. So the Centre had to work a lot harder to raise money, doing more outside commercial work, and less academic research.

(Centre B Research Fellow, displaced from a research position)

D-Four related his experience as Director of another departmental Centre, subsequently to Centre B:

A Centre is an administrative unit that is a sub-department. And this causes some problems. [...] The Director of a Centre has no budgetary authority. There is a flaw in the system in my view, because the Director has all responsibility and no authority. My [current] Head of Department makes no bones about being directly responsible to the university, if necessary, against the Dean. [Centre B's independence] makes one hell of a lot of difference! Centre B is not just any old [departmental] Centre. As interim Director, suddenly I could write cheques. As well as the funds position, you've got to have authority. You end up raising all the money and [...] it's highly objectionable if someone else comes along and spends the money according to their priorities and they've never been down town once! That's what happened in the other Centre I was involved with, and essentially, why I left.

Because the Director of Centre B was seen as a Head of Department at Sandstone, that person was under constant pressure to attend and contribute to Faculty and other meetings, and have a high internal profile. Barry considered this participation in university affairs, an activity unrelated to the Centre, was used as an important criterion for a Director's success. A long serving interviewee explained that: "If you're in the place and you don't attend the various meetings then you get slaughtered I think, so you do have to have a profile out there, even though none of them [Directors] like it. They much prefer research. They came here to do research, and that's why Barry gave it away really". When Barry was offered another position "without the administration and the fights", he was eager to accept. Bernard explained that Barry:

... didn't get along at all well with the V-C, but I would side with Barry rather than the V-C. I didn't get on with the V-C either. It was largely because of the V-C that he left, in my view. In the end life was so difficult for him. Who wants to run a very difficult enterprise when you're not supported by the people above you? It's just not on. Research Centres, they can be very rewarding, they can be very productive, but they're difficult, and under those circumstances, it's not really worth it. So Barry left for another institution offering a large sum of money, and the warm, enthusiastic and public support of the V-C. I quite understand why he went.

Directors Two, Three and Four described a local context dominated by hostility and conflict, all using 'war' metaphors such as "we held the citadel", "fighting awful battles", "the Department having the Centre in its sights for a long time...", and "inundated with armed conflict". Undoubtedly, the Vice-Chancellor's decision that

Centre B would remain independent (see History of the Centre, above) was unpalatable to Faculty hierarchy. In D-Five's time, he felt "the Centre became a symbol of the Faculty's frustrations with the university's central administration". It would appear the V-C decided that reducing the Centre's independence would detract from Sandstone's prestige. Underlying Faculty members' unhappiness was the size of the grant needed for Centre B's upkeep over the years, with no recompense received through a teaching contribution. As Sandstone sought to enhance its international recognition as an excellent university (Bernard), pressure for Departmental academics to publish increased.

Publication Output The persisting concern with publication output from Centre B (see sections **Director Two**, **Director Three** above) left me curious to see whether this concern was justified. Accordingly, I decided to examine the quantity and type of publications in both the Centre and the associated teaching Department. Attempting to assess the quality of published research is always a controversial exercise, and for this exercise, I referred to the Australian Vice-Chancellors' Committee (AV-CC) index of publication categories, then in use across the Australian university sector for reporting research outputs (and tied to contestible government funding known as the Research Quantum). I acquired the index in 1996 from Helen Fullgrabe, Assistant Secretary, Research, AV-CC (see Appendix Seven).

Annual research reports listing publications for each year were available in the library at Sandstone, and I used those of the years 1981-1994 to ascertain the frequency and types of research outputs from each of the relevant Department and Centre B. Appendix Seven includes the results of the exercise, showing the types of output most frequently produced. As a check on accuracy, my results were reproduced independently, and agreed, with a graduate librarian acting as research assistant.

The results of this analysis show the Faculty's concerns about the quantity and quality of output from the Centre were soundly based. Appendix Seven shows that research outputs from the Department were consistently in the form of peer-reviewed journal articles (Category 'C1') and book chapters (Category 'B'). *In twelve of the fourteen years reviewed*, peer-reviewed journal articles were the most common form of output by Departmental staff. Inspection of staff lists in the annual reports showed that,

apart from one or two outstandingly productive staff, the majority of Departmental academics published one refereed journal article a year, evidently planning the work for this around their teaching responsibilities.

On the other hand, types of output from Centre B were much more varied, and of a qualitatively different nature. Seminar papers, not always published as proceedings, and non-refereed articles in professional journals, were much more frequent outputs. Consultancy reports (not allocated a weighting in the AV-CC index, but which I coded as 'D', similarly to 'Major Reviews', for this exercise) were the Centre's most frequent publications *in four of those fourteen years* (1990, 1991, 1992 and 1994). Those were the years between Barry's departure and Bernard's interim tenure. 'Major reviews' feature in the top three output categories for the teaching Department *in only one year*, possibly because consultancies undertaken by Departmental staff were regarded as a personal exercise, and the results were not seen as Departmental outputs. Centre B's best achievement of refereed articles was as its *second* most common output category *in six out of those fourteen years*, (1982, 1985, 1988, 1992, 1993 and 1994) and its most frequent output *in one year* (1987). In Centre A, one Project Manager explained why journal publication had low priority in this Centre: "A Centre report is nowhere near as rigorous in its preparation as a peer-reviewed journal article", a statement with which most academics would agree. The findings of this analysis reinforce the perception that the need to generate funding from consultancy work detracted from academic output.

When we consider that a research Centre, by definition, has research as its primary aim, it seems reasonable to expect its output to be of at least as good a quality as that for similar Departments also engaged in teaching. Earlier sections of this case report showed that university support for Centre B declined substantially during Barry's term, with the withdrawal of traditional funding for Centre positions, and lack of endorsement for outside funding bids attempting to put the Centre's finance on a more secure basis.

Sandstone policy regarding the Head of Department designation for the Director of Centre B was an obstacle for those Directors. Because of the need to act in this capacity, as well as running a commercial programme of applied work and an academic research programme, in Barry's time certainly, publications appear to have been

substantially conference papers. The independent status of Centre B, which the Directors valued, was thus maintained at the cost of their time. Acting as a Head of Department required spending time participating in Faculty affairs and on university committees, which was time away from the research effort. While this exemplifies the university tradition of collegiality, it was not in the Centre's best interests. All the Directors mentioned problems with the Faculty, or the V-C, or both. While Barry's aggressive stance presumably made things more difficult for him, the persistently militant attitude of Faculty staff did little to assist the success of any Director.

Multi-disciplinarity

Shortly after Centre B was set up to focus on one major discipline, it 'absorbed' another Centre in a separate discipline area. Although work in those areas could sometimes be combined through a multi-disciplinary approach, very little external funding existed for work in the minor discipline alone. Centre B staff working in that area held tenured positions, until those became teaching positions. Some recent members of the Centre's Advisory Committee represented interests in the minor discipline and agitated for more research in that area; otherwise, the Centre would not meet its objectives. They appeared not to understand the difficulty of doing unfunded research, and that such work elsewhere was done by tenured academics, who captured the small amounts of money available only to cover expenses. Some of those Committee members were prominent in the state, and on their resignation, complained to the V-C that their views were not heard. "It's a real bone of contention", said Bernard, describing this need to attempt research in the minor discipline as "an albatross around the neck of the Centre for the last 15 years! At least three Directors have tried to do it and it's given them all angst!".

Part of the problem was that conducting research in the major discipline, using a lens relating it to the minor area, was insufficiently focussed to satisfy the Advisory Committee. D-Five tried to strengthen the minor discipline by employing an academic from a different discipline to do this work, however that person had not fitted in well and, apparently frustrated by lack of funding success, did not stay. As one long-term researcher said: "Only one person has been interested in keeping the multi-disciplinary

projects going, and he's produced some work over the years; we've had some good conferences from it too, but there's never a quid in it, and ... that's effectively what we have to get back to in the end".

Barry's interests were totally focussed on the Centre's major discipline and his need to procure finance to support his team and pacify the Sandstone hierarchy. Hence, he gave scant support to the minor discipline. In Bernard's view, continuing to include the minor discipline within the Centre's aims was misguided, and he was awaiting the arrival of the next Director to see how he would deal with the issue.

From this discussion on external and local contexts we can see that the Directors of Centre B struggled to maintain an academic programme, because of a mismatch between their Centre's aims and Sandstone's desire for increased prestige through greater academic recognition, in which publications play an important part. Consultancy and commercially oriented contract research involved mainly non-academic work. As Sandstone's Departmental academics made efforts to publish more often, their resentment of Centre B's freedom from teaching responsibilities caused reduced financial and collegial support for the Centre, and a hostile environment for its Directors.

The next section reports on the embedded cases, Barry and Bernard, and their interpretation and enactment of their role in the internal context of Centre B.

Barry and Bernard: Different constructions of the Director's role

Barry— the dedicated scientist

Barry had an intense intellectual and emotional involvement with his ground breaking developmental research, which he continued during his term at Centre B, with some notable successes. Barry appointed three or four of his previous research colleagues at Wannabee to positions in Centre B: "They followed after, like a band of gypsies" (D-Four). This research group worked closely and very intensively, developing a camaraderie featuring their own 'language' and 'in' jokes. Some staff who worked in Centre B prior to Barry's appointment followed other lines of research, but he showed little interest in their work. As a former colleague said: "His style was to work incredibly hard, and set a very high standard ... and people who followed that style did well. If

people were a little confused and not able to meet that standard, there was no fallback mechanism - they fell by the wayside". Barry held strong traditional beliefs about academics' responsibility to publish. His mandate to refocus the Centre on academic output meant the major change he saw as necessary on arrival at Sandstone was "a move toward [the staff] behaving like academics. They weren't publishing in refereed journals, but they had to seek reappointment once a year so ... we all had to get one refereed article a year". When I asked if this had been achieved, Barry replied that: "The ones who are still with me did! The rest of them tried to make out these were unreasonable sort of ... demands. A couple didn't have their contracts renewed and the rest of them left. The culture was, they were saying they were so important they didn't need to worry about refereed articles".

Interpreting the role

I interviewed Barry at his current university, where he and his group had settled in well, effectively transplanting their Centre. He was relaxed and pleasant, saying at the end of the interview: "I've talked at you the whole time and I'm not at all discreet ...". He and his team saw their work as: "very very absorbing, very very exciting!". Barry saw his most important role as Director as making his internationally recognised group "happy and productive", objecting strongly to the way in which performance appraisals were conducted at Sandstone. He considered his group to be better judges of his success than the hierarchy to whom he reported, and refused to formally appraise his staff, seeing this as impossible with those he regarded as colleagues and worked alongside, often till midnight. He did mention their one-year contracts, so "that puts it back to the individual". Barry also mentioned that he was "basically an applied [scientist], and I've refused point blank to allow senior administrative appointments to get in the way of what I want to do, which is [my] applied [science]. I don't worry about that desk [his desk in the Director's office] at all". Over his years as Director, Barry delegated most of the administrative work to various colleagues, and tended to ignore the rest of it. Bernard viewed this behavior poorly: "Barry was a very good and productive researcher, but a lousy administrator - he never did anything!" which Bernard, as Dean, had found frustrating.

Outside the Centre, Barry considered his role as being to agitate, aggressively, for increased resources for his group of social scientists. Given the antagonistic attitude of other Department heads at Sandstone, and the hard scientific nature of the disciplines from which many in the hierarchy came, this often involved him in “being obnoxious” to important members of the hierarchy. Explaining this reasoning, Barry said:

If you’re the Dean, part of your job is to be obnoxious to the V-C. It is, because as a Dean you should be making life as difficult as possible for the V-C, pushing the barrow for your Faculty. You’re not going to be obnoxious if things are going well for you, but basically, your job is not to be a friend of the V-C. And my job, [in turn] as a Head of Department [equivalent], is not to be friendly with the Dean. I mean I have to look after the rights of the staff.

These differences in personae inside and outside the Centre made Barry somewhat of a Jekyll and Hyde character. The hard scientific attitudes and values held by the particular V-C in office during most of Barry’s term at Sandstone appear to have provoked much of the aggressiveness Barry adopted in his relationships in the wider university, although others also found the V-C difficult. In his current environment, Barry receives good institutional support, and operates his Centre happily and independently.

Enacting the role

“I just set a problem” Barry led by example. His approach was “very informal but very intense, working very hard on the research product. I hardly lead at all, and ... that doesn’t always work. I’ve had some people who’ve been very unhappy. They’ve come here seeming to want to be directed in some way, and I never got around to directing them”. He used a combination of autonomy for staff and generous personal support, which was a very powerful means of developing his colleagues and of linking them into the group, if they had the intellectual capacity to operate at advanced levels and the dedication to work long hours either alone or on topics of shared interest. In return, they shared in the reputation and companionship of the group.

When undertaking contract research, Barry simply set the staff a problem and a deadline, and they could choose whether or not to be involved, with the academic freedom customary in universities. Some of them worked alone with no consultation, and some discussed the work with the Director or others. Barry obviously went out of his

way to plan and structure challenge into the work, so his people had a sense of achievement in reaching solutions. In this way, his staff could avert boredom, but still have the safety net of assistance readily at hand. Aspects of the work were often complex, and the researchers frequently “got stuck”. Barry enjoyed using his 30 years of experience in the discipline to assist: “I’m quite helpful. I’ve spent many many hours unsticking people, when they’re stuck”. Barry’s input to the solution meant the researcher thus had increased capability to meet the next challenge.

Barry was also aware of individual differences. As he said about allocating work, he “just set a problem”, but for the most part, he tried hard to set the problem in a way that would define a successful outcome, before passing it to a colleague for solution. If this worked out, all was well, but if the solution was elusive, Barry tried it himself, or gave it to the group, without saying that others had been unsuccessful. This preserved the standing of the original researcher. As a further strategy for maximising staff perceptions of independence, Barry played down his seniority and experience, keeping his own personal profile quite low, as he did outside the Centre, “so people feel they’re not working for me, they’re working here because they love it!”. In this way, he recognised the voluntary nature of the way staff were attached to his Centre, and his own need for sufficient capable staff to ensure the group’s survival. “Loving it” implied they enjoyed the work and ambience of the group and were thus motivated to remain.

Giving and getting “full credit” Publications from the research conducted in Barry’s group fully recognised all who worked on those projects; Barry refused “point blank” to allow arguments over authorship. He was also very generous about presentation of the research results at academic conferences: “I try very hard to help the younger guys get a spot in a conference programme and get them to be the ones who are presenting our work”, so they could experience the thrill of being publicly associated with a high profile group doing excellent work.

Unlike most other Directors in this study, Barry provided ample verbal recognition for his colleagues, simply by telling them if they did a good job. He did this “every day”, so they were well aware of his approval: “It’s not very hard. It’s part of the siege mentality, too. A lot of people inside this group - we support each other. It’s quite

productive, in a way". This frequent feedback contributed to high morale in the Centre, and Barry related its origin in one of his earlier research leaders.

What made him such a great research leader, the sort of person who inspires other people to do much better than they ever dreamed was possible, was his generosity. He always insisted the people who did the research got full credit for it. At the same time he promoted the research strongly within the profession, to government and to funding agencies. Largely as a result of his efforts, most of us did very good research in his group.

The amount of local press coverage Centre B and its Director obtained was one of the measures by which their success was judged at Sandstone. Barry "resented that like mad" for its superficiality, although his overall press coverage was quite good. Because of the low profile he adopted, however, Barry often ended up talking to the community about the Centre's work without taking personal credit for it. Later, he considered this to be a mistake, because taking the credit in the way other Directors did would have earned him a higher personal profile outside the institution, more befitting his position. This in turn would have helped his standing within Sandstone.

Conflict: "You fix it" Conflict within Barry's team was comparatively rare. On the few occasions it occurred, usually between two people rather than the larger group, Barry would say to those involved: "Well, you're both good. You fix it." which put the protagonists in a situation of needing to work together on the research problem, to make any progress.

Outside the Centre, however, Barry was frequently involved in conflict at Sandstone. It became difficult for him to award salary increments and promotions to his staff, despite holding sufficient funds. In order to negotiate these justly earned rewards, he had to resort to shouting matches with those in the hierarchy, threatening to resign, himself, should action not result. Barry "made a habit of treating the people in his group as friends, never as subordinates". Despite his strong personal dislike, abhorrence even, of conflict: "I don't like conflict!", he was prepared to do this because he saw it as the only way of enacting his role to reward his friends.

"There are no confidential topics here" Communication within Barry's group was extremely open; for example, there was no secrecy about salary levels. As Barry said: "There's always lots of shouting! You'd have to be pretty deaf not to know

what's going on in this organisation". While making many non-project related decisions quickly and individually, he would often take advice from colleagues by discussing issues in the tearoom "loudly!" with the whole group. As he said: "I think all members of staff feel they can make criticisms or suggestions whenever they feel like it. Their ideas are always treated on their merits and argued as between equals - I very rarely pull rank", which was another way of recognising the worth of each individual's contribution. His style of interacting with colleagues explains the loyalty of his research team.

"A bit of reinforcement" Because of Barry's interpretation and enactment of his role, he was consistently unpleasant to people above him at Sandstone, focussing exclusively on the resource needs of his group and on achieving adequate recognition for his social science discipline. His own performance appraisals were conducted by people to whom he had been "very loud and obnoxious", and it seems unsurprising that he received little good feedback on his performance and regarded appraisals as something to be avoided (discussing these was the only time he stuttered): "I was continually at loggerheads with the V-C, and the rest of the Faculty, and I didn't feel I was judged a success. When my contract was renewed, it was a very grudging renewal". Such unrewarding appraisal experiences explain Barry's determination not to engage his colleagues in anything similar. Five years later, the issue of lack of collegial support still rankled: "I suppose all I really needed from the Sandstone hierarchy was a bit of reinforcement. I thought I was doing the right thing ... for a university research group ... but I never heard anybody in a senior position ever say I had done a good job". However the recent review of Centre B adjudged him the Director under whose control the Centre most successfully met its objectives, as a university Centre, and his pleasure was evident.

Key characteristic: Generosity

Barry worked incredibly hard on his research, setting a good example for colleagues and concentrating on the results to be achieved. He followed the example of his former Director in giving consistent feedback and generous credit to others. He was also a very effective manager of his research team, provided they appreciated his style, by building in challenge while providing generous amounts of time to be always available to help with difficulties. This generosity extended even to other academics' doctoral

students struggling with inadequate supervision, whom he invited to visit the Centre so he could help them get back on track. Through his efforts his staff enjoyed both intrinsic and extrinsic rewards.

Bernard: the reluctant interim Director

Bernard had worked in Sandstones for the past 30 years. His term as Dean meant he had wide knowledge of people and processes in the university, and “that had benefits, because I know an enormous number of people, and can try and talk to them and get things done”. While he seemed initially a little reluctant to be included as a case study in my project, presumably because of the Centre’s recent difficulties, I think his inherent belief in academic freedom and the value of research meant he felt unable to refuse. Bernard became Dean without previously having been Head of Department, and admitted it had taken “a couple of years to develop my style. That was the first major administrative responsibility I had had in my entire life”. Being initially an elected Dean, he “to some extent, had to obey the staff”. Later, he was re-appointed Dean under new regulations, and had then to represent the V-C to the Faculty. He now held a professorial appointment in Centre B.

Interpreting the role

Bernard was an interim Director, which coloured his view of the role. He admitted to “concentrating on survival” during the past year, and saw a Director’s responsibility apart from the day to day administration as, more importantly, providing leadership: “... in a research Centre like this, that means research leadership, gaining contracts, helping people do their work. Under leadership you’ve got to get contracts, you’ve got to fulfill a role in staff development, staff assessment - all those kinds of things”. Unit heads in this environment led by “example and effort”, he emphasised, rather than by seeking to exert too much direct pressure. Despite Bernard emphasising how hard he and others worked, his research staff had no problems in making time to see me over the next week or so. Time was not “charged out” as in Centre A.

Despite the constantly recurring mention of funding, contracts, grants, consultancies, and tenders throughout the interview, Bernard strongly supported the

Sandstone's ideal of achieving "high quality research, not just consultancy reports [and] contracts; that's not enough. The only rationale for this Centre is to make a major contribution to national research in [the discipline]. If we can't do that, we shouldn't exist!". Bernard interpreted his role differently from that of a permanent Director:

I'm only Interim Director. I've not taken as many initiatives or as firm a hand, because I'm a caretaker. If I had been appointed permanent Director early this year then I would have done much less research and much more administration. The new Director will still have a lot of work to do to build up the scheme and get more contracts and ... we've got more contracts than we've ever had, but we could do with a lot more. He is here to continue this process, to get more funds, more secure funds, and settle everybody down ...

Bernard's mention of increasing and stabilising the Centre's funding prior to the emotional aspect of settling people down is typical of the way the need for funding permeated Directors' thoughts in the Australian research Centres in this study. Mention of the new Director's responsibility for generating funds implied that work would be available, with greater probability of staff contracts being renewed in consequence.

Enacting the role

Finance Bernard's interpretation of a permanent Director's role as being "to settle everybody down" may be construed as enactment providing reassurance and a calming influence for staff and reducing uncertainty in the turbulent environment. Bernard's strategy that year had been to encourage staff to apply for competitive ARC/NHMRC grants, alongside his own application (the only successful one). Vignette 4.3 provides an idea of the frenetic activity in which Bernard was engaging in attempts to secure research funds. He was an experienced researcher with a notable track record.

Vignette 4.3

It's a very tough business these days. We got one ARC/NHMRC grant out of three. But next year I won't be making another bid because it's a three year grant. I've got five other applications in all over the place - I expect to get at least a couple of them. I am working 150 per cent capacity - I do not want any more grants. I can't!

The new permanent Director is grant-conscious. It's his business but I expect he'll say to me next year "Look, we should put in a couple of grant applications, you can do

it." I'm going to say "No, I've done my dash, I've got all these grants, I don't need any more. Someone else can do it." In my view, I think the staff accept that this is a very important part of our work and the university sees it as important, and if we don't get at least some of these [grants] we'll be regarded as failing in our duty. You're talking about ARC type grants. There are all sorts of other competitive grants I apply for.

I've got two applications in at present with government Departments, for smallish grants, \$30,000 each, relating to [...]. I'll be surprised if I don't get one of those ... I hope to get both. My best guess at the moment is that I'll get at least one; I might get a nasty shock! I've got an application in [elsewhere]. I rate the chances of that as at least 80 per cent. They gave me a grant last year; I've just co-authored a book with [someone based there] which the publisher says is excellent, and I know all the people there. I'll be very surprised if they don't give it to me. And we're in the process of working up a grant worth \$300,000 under my leadership to AUSAID for a post-graduate diploma to train [overseas] officials. I think that's going to be tough because there are four or five universities bidding fiercely for that. We may not get that.

"Basically, I leave people alone" Bernard viewed the current research staff as excellent. Like Arthur, he saw such people as "the main determinant" of Centre success: "You won't have a successful, thriving, highly regarded Centre without top quality researchers. Everything else is relatively unimportant". He was careful not to say anything else about the staff, because he knew I would be talking to them later. Bernard tried to give staff as much independence as he could, so they could obtain their own contracts and work individually on them: "Most of them do that very well. They prefer that environment. I want people to go away and work by themselves on their teams without interference from me unless major problems arise". Some staff confirmed their enjoyment of the challenge of planning projects to solve clients' problems.

Although Bernard admitted he "probably did not consult enough, but life's so busy", he saw consultation as essential for a permanent head: "for an Acting Director it's not so essential and I concentrated on survival". Communication was oral and informal and staff meetings were irregular (a few that year). One researcher described how Bernard would visit him to discuss project issues, asking for his views and negotiating to a consensus. Another explained how "Bernard would let people knock on his door and discuss work with him", which did indicate the door was in fact shut, prior to the knock.

He admitted not reviewing all final project reports (although would do so if permanent, having experienced a case of funder dissatisfaction during the year). When asked about feedback to staff, Bernard suggested they were “fairly mature, and they know whether they’re doing a good job, whether their articles are being accepted. I think they’ve got a pretty good idea themselves, even without my .. personal ...” (unfinished sentence). Basically, he left people alone, not wanting to be involved in close supervision: “I’ve got far too many things of my own to do, because I want to do my own research articles.”

Responding to my question on the credibility of a research leader, one member of staff provided a picture of his fundamental requirements for a Director. Vignette 4.4 paints this picture by a SRF who has since become Director of another research Centre.

Vignette 4.4

There are two things. First of all, a reputation through publications; the person has shown in the past to be a good publisher, in good journals. But then, that only goes so far, and after that you need somebody who ... has ... ideas ... and a vision for the way the place will go, and the sort of work you’re going to do. [...] in a research outfit like this where you have to work with teams, the role of academic leadership is more ‘what to do’, rather than ‘how to do it’ as in a teaching Department, and I think that’s very important. So the Director needs to have a vision about what he ought to be doing, as well as how he ought to be going about it, because you need to point all the people in the same direction really, rather than as in a teaching Department [where] a leader’s not going to tell them what to do ... as much as here. Whereas here, a Director sets the course, and the tone of the place.

One thing that struck me when I first came here was how enthusiastic the Director [D-Five] was; and keen on getting everybody basically ... to work to their potential, not in a sort of ‘stick’ sense but more in a sort of ... ‘encouragement’ sense. I think Bernard, who’s the interim Director at present, his strength is as a sort of good research quality person, as a very strong researcher who’s got an international reputation. Those two things are actually both needed in a place like this. It’s a rare person who can combine the big picture as well as ... the academic quality, but if you can get that it’s terrific! A leader’s very important because as well as the academic strengths and reputation, he or she needs the ability to ... to relate to people so that teamwork goes easily and well. I think also, because we survive because of our contract research, the ability to interact with the wider community, to get contracts in, to negotiate the terms for work - organisational type skills. (Senior Research Fellow)

Bernard, commenting on his reasons for not applying for the Director's position, (and perhaps for not attempting to fulfill all the requirements he saw as necessary) maintained that: "It's very difficult to do the job! To try and find someone who can administer well and do quality research ... hard! The pressure's on you from the university to take on all these external responsibilities...". Bernard's main frustration with his year as interim Director was: "Not enough time for research - cubed!". He described how he sometimes wrote an article in a week:

Some things you can do that way, but what I'm finding after a year in this job is, I have no time for reflection, no time to start new projects. You can't do that under extreme pressure - you just can't!

The Centre was in a reactive situation because the academic interests of staff rarely matched those of the bodies funding applied research, a point noted in the Profile document (1995, p.8). As in Centre A, this mitigated against the development of programmes of research, although it was difficult to see these occurring in Centre B's current 'hand-to-mouth' project-based situation.

Key characteristic: Survival

Bernard focussed on survival for Centre B. This entailed frugality with the available finance, working extremely hard to maintain research activity both as an example and looking forward to the time he was no longer Director, and fulfilling the minimal responsibilities he saw as essential in the Director's role. He did what was needed to keep the Centre afloat, but little more. His focus was on maintaining his own research productivity rather than on a proactive stance to helping staff with their projects.

Conclusion: the case of Centre B

In the same way as Arthur experienced in Centre A, the pressure on Directors of Centre B to acquire funds was an overwhelming feature of their role, exacerbated by the withdrawal of Faculty money for previously funded research positions and a very competitive funding environment. Maintaining collaborative relationships with immediate colleagues and hierarchy at Sandstone was difficult, due to the unhappiness of Faculty members over funds being given to a Centre that was apparently less productive than its related teaching Department. Barry's efforts to fund his research group through consultancy work and the time spent meeting Faculty demands for participation as Head

of Department left him too little time to complete and publish new and important work. In addition, in-house selection committees graded his work too poorly for him even to submit bids for medium term competitive national funding. Despite Barry's lack of support for some of the Centre's official objectives, and increasing hostility from other Department Heads and colleagues with little understanding of the social sciences, the Sandstone hierarchy strongly resented his move to a more supportive institution. His own attitude seems likely to have exacerbated the antagonistic nature of relationships at Sandstone, despite his distaste for open conflict. In the more supportive context of his current institution, his group had once more achieved relative stability. This case illustrates the essential nature of collegial support by a host institution.

Centre B suffered over the five years prior to my visit because of lack of continuity in Directors, its Review Report describing this as "a period of turbulence". The Directors over this period were caretaking, interim appointments (D-Four, D-Six twice), and a permanent appointee who appeared to become discouraged and did not see out his contract (D-Five). This called for frequent emotional readjustment to a succession of Directors by the longer serving, principally technical and support staff, after being "chosen against" when D-Three left. The hierarchy's expectations that the Director would function as Head of Department appeared to have impaired the Centre's ability to acquire funds in such a competitive situation, and hence to conduct research. Lack of a clear purpose, to which the Director and staff, Faculty, university hierarchy and the Centre's Advisory Committee could all make a commitment, caused ongoing internal and Committee dissension. Centre B was struggling to survive, bolstered by the apparent determination of the Sandstone V-C not to lose face by seeing it close.

Comparing the Directors of Centres A and B

With hindsight, I consider both Arthur in Centre A and the Directors of Centre B, Barry and Bernard, to be directing atypical Centres - if there is indeed such a thing as a typical Centre. Centre A was atypical in its rapid growth and success, and Centre B for its survival in the face of many vicissitudes and inconsistent Directorship. These intrinsic cases from which I endeavoured to and did learn a lot, were not in fact the common or

garden Centres of my initial interest. Centres A and B appeared to be at opposite ends of a continuum, as I show below.

External context

Competition for funds Arthur, Director A, was fortunate in supplying a niche market for his Centre's research without too much competition, and he and his staff had been able to grow other markets by proactive work with potential funders. His own initiative in "selling" the research results to core sponsors encouraged implementation of the results, and generated ideas for new projects. Directors of Centre B, however, faced intense competition, often having limited opportunity to make 'profits' even when contracts were obtained. While some project sponsorship was secured in the recent past, fulfilling the sponsors' needs detracted from the more academic research justifying the Centre's existence. Two major consequences of this insecurity of funding are, firstly, the lack of control available to a Director for budgeting or strategic planning purposes, compared with a Head of Department confident of attracting a certain number of students; and secondly, the difficulty of developing a programme of research, in contrast to short term projects. Although Arthur's continuing relationships with his core sponsors gave him somewhat more control over his funding environment than existed in Centre B, the absence of a programme of research was also one of his major frustrations.

Implementation of Results Arthur and his team were in the rewarding situation of seeing at least some of the results of their research feeding into policy and being implemented in practice within a few years. His research staff mentioned how this reward factor balanced out the stressful nature of the insecure funding situation and the pressures of short timelines. Researchers in Centre B, however, were rarely able to see similar outcomes from their work, because of the variety of other influences on policy development. Barry and his team had the pleasure of seeing commercial developments from their work used world-wide, but were intensely frustrated by their continuing inability to publish further developments with the potential for even greater success, due to the need to cater to the commercial market to maintain the research team in existence.

Advisory Committee relationships In Centre A, a supportive Management Committee assisted the Director with direct funding and helped him negotiate with other

funding bodies. Members or their delegates were involved in Project Advisory Committees and there was a flow of communication during the conduct of the research. As one researcher noted, Arthur was very conscious of making a good impression on those providing funding for the Centre, and this political awareness paid off. Barry and Bernard, on the other hand, disagreed with their Advisory Committee members. They found university members to be often antagonistic, and external members, sometimes selected for their status in the community, unhelpful, due to lack of understanding of the difficulties associated with research. The absence of clear and achievable objectives which all involved could support was a notable feature in the poor functioning of the Centre B Advisory Committee.

Local context

Host university support Arthur and his Centre had consistent, generous support from his immediate superior, as well as from others in their Sandstone university. Arthur conveyed that his university's hierarchy "wanted all the Centres within its jurisdiction to succeed", attributing the success of his Centre as an independent unit outside the Faculty structure to the consistent support of his V-C and Committee chairs. In contrast, Barry had to deal with professional jealousies sourced in the other Departments of his Faculty, and differences of opinion with Bernard, his previous Dean. Both Barry and Bernard had unsatisfactory relationships with their V-C, from a different discipline. Lack of collegial and financial support resulted in Barry leaving the university.

Director as Head of Department Arthur was free from this responsibility, although employing over 40 people eventually meant he had many of the same obligations as a Head of Department. To his and Centre A's advantage, he had little involvement in Faculty or university affairs, enabling him to concentrate on the research effort. Directors of Centre B were seen as Heads of Department, and associated duties took up a large part of their time, making their lives more pressured and difficult. This additional responsibility detracted from the research results those Directors could achieve, indicating a lack of clarity within Sandstone regarding a research Centre's purpose and the role of its Director.

Internal context

Factors in the external and local contexts of the Directors had a strong influence on the way individual Directors interpreted and enacted their role. The embedded cases in Centre B showed how factors such as its structure within a Faculty may influence the role expectations held of and by a Director. A Centre's internal factors may also, reflexively, affect other internal factors, as when the lack of internal communication in Centre A affected the satisfaction of some of Arthur's staff.

Barry, D-Three, rejected his administrative duties wherever possible, spending the maximum possible time on research rather than administration. During his time at Centre B, and after transferring, Barry used several colleagues as Deputy Directors to undertake as much of the Centre's administration as possible. One of those colleagues explained:

Barry's style is unusual in the extent to which it depends on his continuing to be at the core of the detail of most research activities and in the lack of attention he pays to conventional managerial tasks. I guess that in most teams, others take up whatever roles the Director chooses to neglect. One thing that depends heavily on Directorial style is the size of the organisation that can be supported. When the details of the work depend so much on the Director, as they do here, it is difficult for the organisation to grow very big, even if funding is no problem.

In this sense, research Directors closely involved with the research work appear similar to small business owners who find that growth limits their hands-on involvement, and who consequently decide not to grow the business beyond a certain size, preferring to retain their involvement. Arthur could see retirement several years ahead, and perceived greater social benefits as more likely to occur from his organising for worthwhile work done by others, than by his personal engagement in hands-on research.

Barry led by example, giving staff ample freedom to devise solutions to the problems they accepted for resolution, but always being available to "unstick people" when they had problems, and regarding his staff as "friends rather than subordinates". Such a work climate clearly meets Rost's definition of leadership as "an influence relationship among leaders and collaborators intending real changes which reflect their mutual purposes" (Rost, 1997). Barry played down his seniority, keeping his personal profile low, and this equalised differences. He also provided frequent and generous recognition for his colleagues, in a way not adopted by other Directors in this study.

Arthur, in a much larger Centre A, developed and endeavoured to control a culture that was very sensitive to communications with funders of the research. His senior staff were aware of his expectations of them, despite acting with a large measure of autonomy. Staff satisfaction was closely connected to the intrinsic value of the work, with Arthur's praise occurring mostly at end of project.

Director Six, Bernard, acted instrumentally as an austerity manager to meet the challenge of enabling Centre B's survival. He introduced economies to bring the budget under control and assisted with new staff appointments designed to improve the Centre's performance. While he secured grants, these did not appear to be for team research, although he would discuss the work of staff with them on occasion. While this success and his high productivity reflected well on Centre B, communication was on a personal basis rather than a group basis and staff morale appeared somewhat shaky. Bernard did not take responsibility for the Centre's projects by, for example, reviewing the final reports before submission. As an Interim Director, he was committed only to "minding the store".

Summary

Director A enjoyed an advantageous funding environment in a previously unfilled niche, good relationships with his immediate superior and Advisory Committee, and the satisfaction of seeing the results of the Centre's research being adopted in practice, with excellent outcomes. He was also free of Head of Department status and its demands, having consistent internal support from high level hierarchy. Centre A, while not a typical university Centre, may be a forerunner of other successful Centres, as a compromise entrepreneurial unit in the increasingly difficult Australian funding environment.

In comparison, the Directors of Centre B faced intense competition for funding, were not always able to identify the outcomes of their research, and maintained unhappy relationships with their Advisory Committees. Their university environment was hostile and unsupportive at both Faculty and V-C level, and the Directors, as Heads of Department, were required to spend disproportionate time on Faculty and university affairs in contrast to being free to work towards achieving the objectives of their Centre.

In both these very different Centres, the constant attention to funding was an ever present issue. While the expectations held of the Directors were broadly similar, differences in context influenced their achievements, their enjoyment of the role, and the extent to which they were perceived as meeting the expectations of their Communities of Interest.

Reprise: Findings from the first stage case studies

As identified at the beginning of this chapter, three major issues emerged from my comparative analyses of qualitative data, briefly described in the case reports above.

These issues were:

1. **Directorship is complex and multi-faceted.** The umbrella term *Director* covers a position that is multi-faceted and demanding.
2. **The structural relationship of a Centre to its host university impacted on the expectations held of a Director.** The different ways in which a Centre is connected with its host institution affect the demands on the Director as a member of the university community, making the Directorship more complex. Both this factor, and the quality of the personal relationships between the Director, and immediate superiors, impacted on the time and opportunity the Director could spend developing their role.
3. **The sources and consistency of a Centre's funding influenced the Director's work.** The activities of each Director and his staff were influenced by the number and attributes of the sources from which funding was obtained, and the consistency, if any, of the funding.

Issue one relates to the overall nature of the Director's role, and issues two and three to the structural and financial contexts of their Centres.

Looking towards the second stage of the study

The findings of the first stage of this study into how Directors interpret and enact their role indicated that two essential requirements for a research Centre are, to have a Director with ability, vision and commitment to the Centre, and funding to enable the conduct of research. If either is absent, the Centre will struggle to survive. Centre B suffered under interim Directors without the commitment of a permanent appointee. In setting up a Centre, the host university contributes the initial instalment of funding as the Director's salary (Directors of these Centres all had academic tenure) and usually, provision of premises and other infrastructure such as library facilities and internet connections for a Centre's staff. There is also need for a sufficient market for the research, or for the Director to generate one, for the Centre to maintain equilibrium or to grow. It seemed unlikely that many Directors would have prior managerial experience, as did Arthur outside the university, and both Bernard and Barry in academic settings. Also, these roles, new to many other academics, were being undertaken within an unsettling environment of turbulent change for higher education. I was curious to see how other research Directors achieved results, and whether they were subject to the same contextual influences. Ragin discusses how in working with cases, the early objective of learning as much as possible about a particular case "eventually gives way to an attempt to identify the features of the case [...] most significant to the researcher and his or her questions" (Ragin, 1994, p.84).

Thus in undertaking the second stage of this study, my aim was to explore the ways in which the issues emerging in these first stage cases affected other Directors in different contexts, if indeed they did, and to investigate more deeply the contextual effects of the consistency of funding, and of the structural relationship between a Director and the host university, on the Director's role. I therefore decided to select as second stage cases Directors of Centres in differing structural situations (see Chapter Three). This Chapter Four has presented the emerging findings and conclusions of the first stage intrinsic case reports, showing their contribution to the way I approached the second stage of this study. Chapter Five will do likewise for the second stage instrumental cases.

CHAPTER FIVE

THE SECOND STAGE CASES

Outline of the Chapter

Following Chapter Four, which presented the case reports from the first stage of this study of university research Centre Directors, Chapter Five presents the case reports from the second stage. While these additional studies of Directors also have intrinsic value, they comprise a more instrumental, collective approach (Stake, 1994) than did the earlier cases. The focus is on the three major issues from the first stage cases that I wished to explore in greater depth. After the case reports, I present a brief summary of the findings in relation to both these major issues and other important findings that emerged as the analysis progressed.

Objective of the Second Stage of the Study

The objective of the second stage of this study was to investigate the findings of the first stage with a further group of Directors, approaching them as collective instrumental cases in contrast to the more intrinsic, exploratory cases of the first stage, when I was unaware of which issues would be important. Accordingly, I selected four Directors as cases for exploration of the issues of *role complexity*, *funding*, and *structural attachment*. Limited time and finance meant I could undertake only four more case studies. These four Directors, in four different universities, appeared to provide good opportunities in somewhat different local contexts (see Chapters Three and Four), for examining the presence and prominence of the issues important in the first stage of this study in different contexts, and whether other important issues might exist.

Major issues

The issue of funding, I assumed to be of vital importance to most Centres without the limited security of those in the Research Centres' Program cluster, hence it could not be excluded. To investigate the issue of structure, I selected second stage Centres connected to their host universities in different ways. While the first stage cases were

Directors working in fairly independent Centres — a stand alone Centre A and a Department equivalent Centre B — the second stage Directors headed a Departmental Centre, a Faculty Centre, one located in a Department but reporting to a Dean, and a university Centre with members drawn from two Faculties. These Centres were located in four different host universities, partly reflecting individual universities' policies on Centres. All Centres were connected, in admittedly sometimes tenuous ways, with one important sector of both social and scientific concern, in an attempt to reduce the effects of diversity. This, however, proved relatively unimportant compared to other much more significant factors contributing to the complexity of the Directors' role. From the Centres' annual reports, all appeared to be between four and eight years old. Although I sought diversity, I sought also to limit that diversity, and in this way to enhance comparison. Two of the Directors were women and two were men. One Centre was in the biological science cluster of disciplines, one in the social science cluster, and the other two focussed on problems drawing on a range of scientific disciplines to achieve their socially based aims (see Chapter Three). These Directors and their Centres are identified as 'C', 'D', 'E', and 'F'.

Format of the Case Reports

The instrumental nature of the second stage case reports means they all follow a fairly similar expository format, each including the following sections.

- *To convey the Centre's structural context, a description of the Centre's structure within its institution and the links between the Director and the host university.* The values and attitudes of members of the host university's hierarchy with authority over the Director are also described. This section of each report conveys the context of the Director's work and the clarity of the messages he or she received from some of those whom role theorists would call *role senders*, conveying *role expectations* (Katz & Kahn, 1978, p.196).
- *A summary of each Centre's funding situation and context at the time of my visit, the implications of this, and the way in which a Director proactively or reactively contributed to this situation.* This section shows that Funding Body representatives

are also included among those conveying role expectations to Directors, and that Directors and Funding Body members may influence each other.

- *A summary of the way in which each Director interpreted and enacted his or her role, based not only on their own interviews but also using the data provided by the Director's colleagues in the Centre and in the university hierarchy.* In this section of the reports I provide a picture of the context-dependent individual way each person interprets and enacts their *Directorship*. As Directors usually assume their positions without prior formal training, filling this role is a learning experience continuing for many years. This answers my initial research question, *How do university research Centre Directors interpret and enact their role?* and shows many ways of interpreting and enacting the role.
- *In conclusion, an assessment of the current situation (growth, equilibrium or decline) of each Centre at the time of my visit, and of each Director's contribution to this situation, within its particular context.* The key characteristic of each Director is identified, and an epilogue provides more recent detail on the progress of each Director since my initial visits in 1996. This section reports the changeable nature of the contexts within which Directors enact their role and illustrates the vulnerability of their Centres to outside influences.

The Second Stage Case Reports

Centre C: An amalgamated Centre in a 'Sandstone' university

Director C: "Christine"

Christine, Director of the first of the second stage Centres, Centre 'C', was the second Director of her Centre. On moving to Australia from another country after gaining her Honours degree, she obtained her doctorate at a 'Wannabee Sandstone' university, moving later with her family to the city where she still worked, to take up a position in a College of Advanced Education (CAE). Centre C originated formally eight years earlier, derived from a much older, loosely knit group of social scientists. Those CAE staff wanted to pool their research time and work together: "There were a group of us who were concerned about not just being involved in working with [our target research population] but actually reflecting on, and analysing, this work." Gradually, the reputation of the group grew as various projects were successfully undertaken and reports published.

The group became a formal Centre in a strategic move, prior to amalgamation of the CAE and 'Sandstone' university in one of the many academic mergers of the time. While the members of the Centre initially wanted to provide "a more structured and coherent base of research" than then existed, that was not an end in itself. Their real aim was, "to establish a critical climate" and an environment in which the often sub-optimal circumstances of their target research population could be improved, through policy development and changes in practice. Increasingly, the researchers could see a direct impact from their work, which was very rewarding. Christine had thus for many years been involved in research collaboration, in contrast to initiating and building an individual programme of her own. She had also worked with the Centre's inaugural Director.

Christine noted that "Centres are very hard to establish; you don't have Centres unless there's very good reason. The university leaves it up to us to shape our Centre and if it's strong, good; and if it's not, the university will recommend it be abolished". Once the university approved a research Centre, its Director was substantially free to set an agenda and to operate in any legal way desired. In accordance with Sandstone's policy on

research Centres, Centre C was located within a teaching Department and Christine reported on a daily basis to her Head of Department, who reported in turn to the Dean of Faculty. When Centres were reviewed each three years, a Director had recourse directly to the Chair of the high level university committee responsible for Centres, should they see the need. Christine had used this means of appeal once.

University Perspectives

The Dean of Faculty My interviews with Christine's Dean of Faculty and Head of Department were at her suggestion. The Dean related that the criteria of success for a Centre were: the extent to which the Centre gained public credibility, the extent to which it attracted external income, and the extent to which its work was published. Centres were "encouraged" to be self-supporting. The actual mix of roles Directors needed to play in relation to their Centres varied with the extent to which "a Centre might be getting reasonably secure income". The Dean saw Christine as an effective Director who knew her field and her market, was alert to opportunities for involving interstate people in the work of the Centre, and who spoke frequently at conferences so that "the Centre becomes named". However he did not consider her specially skilled in this way. Six years after the amalgamation, the Faculty, as recommended by the review team, had recently started to fund teaching relief for Christine which as a tenured Departmental academic she had not previously enjoyed. This was so she might have more time to fulfil her responsibilities as Director.

The Head of Department Internal restructuring several years earlier had seen Centre C shifted from another Department to its present one "somewhat arbitrarily", following staffing and course cuts across the Faculty, including staff associated with the Centre in its early life. Christine saw the Centre as "good for the Department, not the other way round". She briefed her Head of Department regularly, and very clearly: "It's good for a Centre to have somebody in that closer relation, like not so high up, who's aware of it and who can advocate and give advice. If this relationship were not supportive I think it would be terrible, but in my case it is very supportive". Centre C had particular significance for its Department because as the Head said: "The research Centres in this Department are rapidly becoming the primary vehicle for our major research effort. The research Centres here are helping my Department establish, confirm

and develop a strategic niche in a Faculty in the university.” The worth of Centre C was confirmed by the Centre’s annual reports, which showed steady growth, good external links and success in attracting funding. Christine’s Head of Department saw Directors of Centres enjoying “...very substantial responsibility. They are experienced and skilled academics who essentially ... manage the operations of those research Centres; it is a nice medium for appropriate delegation.”. He also saw as an advantage the relatively unambiguous mission of the Centre, which “despite its precision, gives it a very broad mandate; its targeted research field is a very wide field”.

The Director and Staff of the Centre Christine’s initial motivation for working with others in the research group was “to contribute to something that was going to be extremely productive, which in itself would be a valuable contribution to the local scene”. On becoming Director, she hoped the Centre would become internationally well-recognised and respected, and since then it had made consistent progress towards this goal. However, “I think there is a culture that is part of Sandstone that we don’t fit comfortably into” said Christine’s remaining inaugural colleague. He saw that:

Notions of collegiality within this university are very different from the notions we brought with us. Here it is a feudal notion, not based on consultation and due process with regard to some sort of democratic decision making, but very much tied to a hierarchical notion of the elite, a college of established achievers who therefore have the shared wisdom to make decisions on behalf of other people.

Sandstone had the culture of a traditional university, one of patronage and individual achievement, in contrast to Centre C with its strong emphasis on collaboration and teamwork. While researchers in Centre C maintained a good flow of refereed publications, these were often jointly authored. The group’s applied focus meant they were committed to doing research with outcomes; that is, a resulting policy implication or potential effect on practice for those working with the research population. More traditional Sandstone academics did not favour too much collaboration with others, because this could detract from individual recognition for high achievement which was the accepted and only way to further a career, usually with the patronage of a mentor. This attitude had created problems at Sandstone, Christine’s colleague related, because “notions of intellectual ownership are pushed here in a quite extraordinary way, and some people were puzzled by the output of so many joint publications”. On one occasion, said

Christine, the values strongly supported in the Centre had conflicted directly with those of certain people at Sandstone. She had stood her ground then, and won, because she “wasn’t prepared to just let their values be uncritically accepted”. This value conflict generated a continuing tension:

The university is on about academic credibility and academic production and we are spending a very big amount of our time doing things that are not highly academic. The Centre is getting lots of research money for doing practical work, but in other ways, we are doing what the university would like - the high priority activity of research. That’s the tension; we are doing both, so ... what can they say?

Financial Background and Implications

Initial funding for the research group was from an annual grant provided by a state government Department, in exchange for on demand research into various important issues. At that stage “most policy on the [target research population of the Centre], and indeed the practice of most field workers, was very uninformed by research”. The dozen or so academics then involved with the Centre were all tenured, and as the inaugural Director said, “Once we had that initial funding secured we were always in a position to pay our project staff, we could always respond to requests as they came for different projects. We were always busy.” While the initial grant had ceased, it provided a stepping stone for the group to establish a profile and attract other work. When Christine became Director, the Centre’s future was not entirely clear, and the staff were still working to generate sufficient project funding for ongoing viability. Christine was committed to raising a core amount of money to retain support staff, for continuity: “in some ways this is more important than continuity of research staff. It would be impossible if I had to retrain people from year to year.”. Hard work and several very visible successes had grown the reputation of the Centre during her tenure, and generated widespread demand for ongoing consultancies associated with one area of the work, with very useful income. One of the most rewarding outcomes, said Christine, was when project work done by the Centre demonstrably influenced practice across Australia and overseas: “We hoped it would be good, we expected it to be good, but it’s been overwhelming!”.

Christine was very conscious of the need to achieve a balance of different types of funding for the Centre, and while several ARC/NHMRC grants had been achieved, the majority of grants and contracts were from statutory foundations or state and Federal government bodies, with some work from practitioner organisations and industry. A number of the contracts available for tender in recent years had fallen within the scope of the Centre's broad aims, although at some distance from the original discipline of the researchers. "Increasingly, we have to follow the dollar and rationalise that to the picture of the research we are doing. Because grants have been available in a particular direction, they have taken us in that direction". said the Centre's Management Officer. This was where the breadth of scope in aims was an advantage. Grant success was unpredictable, and there was a tension between awareness of the need to earn money (and work to the satisfaction of the funder) and the need to act with the professional and ethical integrity that was one of the values held strongly by the Director and her colleagues. The Management Officer explained:

Quite often we have been in competition and we have come second. I am not saying that out of sour grapes but there have been quite a number of occasions where we were led to think that we are the favoured tender bid, and then found out that the process has not been as open and clean as we thought. Sometimes we have also indicated a more critical view on the research and the funder has opted for a safer, less critical bid.

While this was disappointing, "it says something about the Centre's reputation".

As to the influence on research of funding bodies in general, "there is subtle and there is overt". Subtle influence operated through awareness that "strongly antagonistic findings" would encounter difficulty impacting on policy development. "This means", said the Management Officer, "that we become more cunning about how we do that research and how we phrase the outcomes, so we don't needlessly create antagonism or enemies. That could be seen as a self censoring approach, but it is the real world". There was another constant fear: "If you come up with strongly antagonistic results are you going to stop yourself getting any further funding from that body?"

The increasing success with grants meant that Christine could be more discriminating in regard to new work. There were now times when "projects come up and we stop and say 'Do we want this project?' We would feel we would get it if we

tried, but we have to say ‘Do we want it, or can we manage without?’ ”. These episodes show how enhanced reputation and a proactive approach to different funding bodies had enabled Christine and her colleagues to move the Centre away from survival mode towards greater choice and independence. As she said:

Funding is not really predictable at all. It’s not. It takes you a while to get into the rhythm of it and there have been times when I’ve been wondering ... well, I’m always wondering ... but when I’ve been a bit pessimistic about whether there would be a project. There could be none. I think now that would be almost ... very unlikely.

Despite Christine telling me she paid the contract staff “very well, compared with other parts of the university, which makes up for the insecurity to some extent”, some of those staff had resigned prior to the completion of a project, saying: “I am sorry, but I simply have to take a job with some kind of security”.

Interpreting the Role

Christine adopted a proactive stance to her job:

I want to feel a sense of pride in what I do. I think I show by leadership that you don’t stop till you get it done!

However, she would prefer to conduct research rather than to direct, should this be possible. She chose to retain the collaborative culture on which the Centre’s success was built, as an enclave within the individually-oriented tradition of the Sandstone which was now their host. Astute management of university politics was an area in which she took particular care, being aware of the advantage of having open communication channels with influential hierarchy, to gain recognition for her Centre’s achievements. She also saw her role as a participant in outside groups where she could both exert influence, and gather information on possible future projects in which the Centre might participate. Although fundamentally attuned to conducting participative research, she usually saw her own role in the research as understanding the rationale for a project and holding an overview of it, rather than being directly involved in collecting or analysing data. She was conscious of the importance of meeting deadlines: “We always meet deadlines. This is what gives us our credibility”, an important factor in internal quality control and external relations with funders.

Christine also considered it her role to retain access to the Centre for practitioners and those in the research population. Despite Centre C's amalgamation into a prestigious Sandstone, she retained a natural and accessible manner. Within the Centre, at least, she had not adopted the condescending manner she experienced in some Sandstone academics of longer tenure.

Enacting the Role

"We did this" At my visit, Christine and one other inaugural Centre colleague held tenure, while the twelve project and support staff worked a variety of mostly part time hours. Christine was extremely busy and spoke of the possibility of not being Director in five years' time: "I would like a life, some day". She spoke of the role as being "how you juggle ... lots and lots of things to juggle". Her recent book had been written during one day a week at home and between 5 a.m. and 7.30 a.m. each morning.

A striking difference here, from the other Centres I visited, was the way in which Christine's research colleagues consistently talked in terms of: "we ... did this", "we ... decided that". Elsewhere, the Directors were clearly identified as separate people, with emphasis on the position. However, on talking with the former Director, now working elsewhere, I realised that he also spoke in this way and that it reflected the truly collaborative culture of Centre C. When I raised this use of "we" with Christine, she said: "You get a better team - you get a better result, when people feel they all belong to it". Most Centre C staff also felt free to use the diminutive "Chris" for their Director.

As the research in the Centre was always team research, contract staff had input to grant applications being prepared: "I ask the others to do bits where they have particular skills, because I know they are better at some things than I am", said Christine. One or both of the two core academics (she and her remaining inaugural colleague) were involved in each project as Principal Investigators, and maintained oversight throughout, with research staff being expected to provide intellectual input to their portion of the work as it progressed. More academics, if available, would have enabled the Centre to take on more work. Christine described how the final reports were usually jointly written:

We might all sit around the table and have an in-depth discussion on the tone of the report, then people do different parts. I might do the first part, because I know why

the research was started; the contract staff have been collecting and analysing the data and know about that, so they write those parts; then we give it all to the Management Officer and he edits it so it looks just right. We couldn't manage without him doing that. We are working with a community of practitioners. If the quality of our research went down, the Centre would go down.

Very few decisions were made without consultation and collegial input. Several colleagues jokingly maintained they did not know of the existence of any processes for making decisions. The decision on whether to move to other accommodation took over a year: "There was almost a sigh of relief when that decision was made". Tied to this collaborative way of working was the desire for staff to play an active part in the life of the Centre, "being here, being part of discussions, showing commitment to the collective, not sitting at home doing the research".

"Doing Participatory Research" Commitment to the sector of society represented by the Centre's research subjects was very strong, and the researchers aimed at tapping into their perspective, "... so the research reveals how they see things at present". Christine and her colleagues maintained that: "the research should be holistic, we should see the complexities of their lives rather than seeing them compartmentalised". Wherever possible, the research participants were asked to interpret and comment on the results, to reflect on them, so that it was indeed conducted 'with' them rather than 'on' them; "we don't do this well, we struggle all the time to do it better", as one person said. The Director's friendly, low key manner encouraged access to the Centre by practitioners and the research population, "who quite often would be perhaps intimidated by too much of an upmarket appearance". Christine explained also how, apart from the reports for funders, research results were written up, not just into journal articles for academic publication, but in "reports for the field". High priority was thus placed on making work available to lay people who would not see academic journals, but who would read short, relevant, well-written reports that kept to the point.

"Establishing a working team well" Christine's colleague saw this as perhaps the strongest attribute contributing to his Director's success. Apart from some former colleagues now associated with the Centre part time, the contract staff were not usually doctorally qualified and tended to have worked in practice. Although experienced and capable, they had not previously led their own research projects, unlike staff in some

other Centres. The reason Christine employed experienced senior project staff was partly so that they could make decisions should she be unavailable. Projects in Centre C were always instigated by one or both of the two core academics, and in this way intellectual control remained firmly in their hands. Staff had goals set for them, and they worked towards achieving those goals at their own pace, but with deadlines firmly in mind. Deadlines for research were always met, because that gave the Centre its credibility, and operational control was thus passed to the staff: “You work to what you have to do, rather than rigorously to hours”, although one senior contract staff member pointed out that: “there could be a certain amount of angst associated with meeting the deadlines”.

One staff member operating under those conditions had become “very possessive” about the project she worked on for several years: “She was doing a whole lot of things she was not meant to be doing in the project” (Christine). Eventually, after attempts to restrain this person through exercising stricter control over her work, without much success: “It certainly was not working!”, Christine did not renew her contract. Three people spontaneously raised this incident, which I saw as testimony to its uncommon nature. Christine said she “learned a lot about managing and things like that” from the incident, while the Management Officer’s comment was: “I don’t know that university people are trained well to be managers of Centres. I don’t know that either of our Directors have had any support or training, anywhere, in how to do the jobs. They have been expected to do them”.

“A Strong Delegator and Truster” All the people I interviewed in the Centre mentioned or implied Christine’s trust in and delegation to others. “She is a strong delegator and truster” said one. “She has the ability to understand what is happening with a number of people working in different areas while effectively saying, to ‘M’: ‘I trust you to run this project’. She says to me: ‘I don’t need to worry about the accounts, because I know you understand what is happening’.” This was an important sub-role for the Director, described as “the buck stops here [factor]; responsibility for knowing how it all fits together, and part of this is having some sort of vision of where the Centre is going”. One fairly new staff member would have preferred definite systems for “the management of money and papers. [...] There is all this goodwill, and people are trustworthy and they work together and it works out, [...] but, if you are running it as a

business ...". Christine also extended this trust to others outside the Centre when sometimes, a more business like approach would have been more appropriate.

"Standing my ground" Since becoming Director, Christine had been involved in representing her Centre in a variety of Sandstone contexts. An early review report misrepresented and underestimated the work of the Centre, due to misunderstanding and what was seen as prejudice on the part of the review team. Christine exercised her right of appeal to negotiate a repeat of the process, with notably improved results. She identified that episode as one of her learning experiences: "That whole business of the advocacy in the university taught me a lot about politics and about standing my ground, so that's my favourite thing - absolutely critical!". This type of behaviour was important at Sandstone. A Director who could "hold their own in various forums is seen as somebody who has to be taken seriously, in terms of taking issue on matters affecting their Centre; they are not going to be a quitter" (A/Prof., Centre C).

"Involvement" Christine had particular strength in networking, both inside and outside the university, "so there is a fair degree of initiation of things on various committees, and through less formal and personal links" (A/Prof., Centre C). The Centre had "a sufficient profile" that people wanted a person representing it involved in their projects, and since its reputation had grown, Christine had been invited to participate in important policy meetings and to sit on advisory committees for many other organisations. She also collaborated with groups inside and outside Sandstone over proposed research projects: "At present I have three other groups wanting to collaborate with us, who are doing the background work for the projects. We will all share in the eventual funding". The downside of this was that her time in the Centre was fragmented. Sometimes events such as the urgent work associated with tender deadlines overtook the planned monthly meetings, these having been temporarily discontinued during the recent absence overseas of both academics. Christine herself, and two others, were uncomfortably aware that such opportunities to exchange information and provide feedback were part of what the Centre was about, and needed to resume. Christine's capacity for "being enthusiastic about people's projects, and offering them support and encouraging them in terms of good work" (SRF) did not appear to balance out such deficiencies in regular communication.

Contextual Influences

The Faculty Dean at Sandstone regarded Christine and her Centre favourably, because of their capacity to generate funding, and the high profile the Director maintained for her Centre and, in consequence, its host institution. Her Head of Department supported the Centre because it was successful in an otherwise declining Faculty, helping his Department achieve its objectives. Awareness of the criteria of success at Sandstone motivated a good flow of academic publications from the Centre, often authored collaboratively. Christine was also aware that the practitioner Community supporting the Centre expected the research to be relevant and of practical value to them, and she ensured they had easy access to the research findings. Meeting the expectations of these two Communities generated a continuing tension between the Centre's more applied aims and collaborative operation and the traditional culture and values of Sandstone, focussed on personal achievement and reputation. Christine's careful management of university politics, and Sandstone's urgent need to attract external money, meant this tension was currently more relaxed than at earlier times.

Other tensions existed around firstly, the possible dilution of the researchers' academic objectivity through influence of funding bodies on the research, and secondly, the loss of a chance of future funding and influence on policy through an overcritical stance destroying any further collaboration with particular organisations. This required that grant applications and research reports be carefully phrased, while retaining the authors' right to publish, through negotiations at contract signing time.

Christine and her tenured colleague used team research to generate better outcomes, delegating responsibilities and trusting others to meet deadlines, although retaining control as Principal Investigators. Participative research was the norm. Her flexible and proactive grasp of the opportunities offered had secured ongoing work aimed at satisfying the expectations and objectives sought by all the Centre's Communities.

Key characteristic: collaboration

Director Christine worked in a very collaborative way, and this was the key to her interpretation of the role of Director:

I basically ... put a lot of store by people ... collaborating in [the decision making] process, and giving feedback so I feel ... confident that I'm acting on the best advice of everybody ... and they know what I'm doing.

Her many years of teamwork with colleagues in the more collegial CAE environment had brought success, and approval from the funding bodies and professional groups who benefited from their applied research. The Centre's research continued to be "always team research", attempting to include the research population as participants, with results being provided in accessible form to the practitioner and community audiences. Collaboration was thus the foundation of success and the way in which Christine and those working in the Centre could achieve their aims.

Networking by the Director through frequent attendance at meetings outside the Centre was a major strength, and a prime source of new research proposals, often developed collaboratively with others working outside Sandstone, or inside it, in other discipline areas. In contrast with Arthur's proactive entrepreneurial approach in Centre A, Christine was more of an advocate for Centre C, through her involvement with external groups. She also acted as an advocate for the Centre within the university by adopting a consistently assertive stance within the wider Sandstone community, and keeping the successes of her Centre in front of important and influential people. Within the Centre, she trusted staff to work to their best abilities, giving them ample freedom to develop their own work areas, so that her core group spoke naturally of how "we" had undertaken many activities, with a sense of joint ownership and an absence of formality not found in any other Centre. Christine appeared to treat her project staff as if they were academics, probably because she had always worked in academia. Because she was well aware of how much her colleagues contributed to the Centre's success, she was uncomfortable with the way in which this success reflected on her personally as Director.

Situation: equilibrium

The broad focus of the research conducted in Centre C meant a potential variety of funding sources, thus avoiding the danger of becoming too dependent on only one type of funding. The group had been fortunate in its ability to cater to an initial unfilled market need, allowing it to build a reputation for efficient professional work, prior to formal recognition as a Centre. University connections (the Dean) had also helped in procuring a

multi-year grant, which generated outcomes beyond all expectations and provided stability at an important time. The Centre's growing reputation meant the Director was sometimes now approached to tender for projects, as the cumulative effect of multiple grant successes reduced some of the uncertainty over future funding. Christine was realistic about the need for expansion and contraction in response to funding success: "You need a core staff, plus others".

She also suggested that, over time, the funding graph for a Centre would tend not to rise, but would show peaks and troughs, implying a reasonably stable mean, or flat trend line. The troughs, Christine saw as an actual need – not necessarily a bad thing – but extremely important, she said, giving academic staff time for reflection and the space to "sit back a bit and do writing", outside the "go, go, go" bustle of constant work towards project generation and deadlines. This observation is similar to Bernard's dissatisfaction with the way his interim Director's role in Centre B interfered with his research activity. Christine and her remaining tenured colleague had worked together over many years, developing a good knowledge of each other's abilities and sharing fundamental values. They were also comfortable with conflict, discussing this openly when it arose. This partnership provided a very stable core for Centre C and was one of its major strengths.

Epilogue

Shortly after my visit, the Dean withdrew the grant provided for Christine's teaching release time as Director, and the subsidy for administrative support positions in the Centre, as a flow-on effect of government funding cutbacks. In Christine's view, Centre C was regarded: "with very greedy eyes and very favourably by the Faculty, because we earn a lot of money. This is a declining Faculty. Things are desperate". Christine was at that stage directed to resume a normal teaching load, or to buy out her own time from Sandstone using funds generated by the Centre, and, given her interpretation of proactive collaboration as the path to success, she was clearly disappointed: "The job is there and you do it, but ... you work so hard to get recognition of the Centre, where it looked like a good two-way relationship [with the university] ...".

After two years, during which Centre C struggled to remain viable despite increasing success in external grant applications, the good reputation Christine and her team had built resulted in changed funding arrangements which were likely to be more satisfactory.

Partly as a result of my visit and subsequent reflection on her role, Christine had attended a course for women university managers at Sandstone, where she gained the impression that: "There's nobody watching out for you" as a Director, "you just have to do it yourself", which was "quite frightening". In a later conversation, however, she offered a more positive view on this; she had also discovered that at Sandstone, contrary to the oft-expressed opinion "they will never let you do that!", you could achieve anything good, if prepared to put in the effort. The Centre C group have continued their reflective discussion and environmental scanning, instigating change when needed: "We would see [this change] as inevitable, building on ten years of success" said Christine two years later. "Sensitivity to a range of external factors, and an ability to change, while at the same time providing continuity, and yes, certainty, are important for the survival and development of a research Centre".

Centre D: An Adopted Centre in a 'Wannabee Sandstone'

Director: "Dorothy"

Dorothy, the inaugural Director of Centre D, the second of the Stage Two Centres, had written the initial proposal for funding to establish her Centre, which was now a Faculty Centre within a 'Wannabee Sandstone' university (Wannabee) (Marginson, 1996). Dorothy had steered the unit through a poor and unsupportive relationship during the first three years with its original host university, a Sandstone. Her first degree was from a prestigious overseas university, and prior to heading the Centre she held a tenured post in one of the Departments of this Sandstone, the institution where she obtained her higher qualifications and had worked for some 20 years, including the time when her children were young. Her current Dean of Faculty told me: "she had the reputation and the Centre was built around her". Centre D was in receipt of a large external grant from a quasi government organisation, which I will call the 'Funding Body', and this had provided a stable base for the Centre's growth. Dorothy had actively participated in

professional organisations in her city and state for many years, having also worked with several state government Departments associated with her field. She and her colleagues who formed the Centre were using methods new to their discipline to conduct social and policy oriented research aimed at improving outcomes for their target population.

Dorothy was responsible to both the Executive Committee of the Funding Body and the Dean of Faculty at Wannabee. The lack of support forthcoming from the Dean at her original Sandstone location resulted in the transfer of her Centre's affiliation to Wannabee, at the instigation of the Funding Body's administrators, who were understandably concerned for the security of their investment.

The Sandstone Experience

At Sandstone, Centre D was a Faculty research Centre outside any Department, when all other Faculty research Centres were located inside Departments, with Directors reporting directly, or through their Professorial Heads, to the Dean. While Dorothy had obtained some initial support from one Head, it was politically unwise for her to locate the Centre in this Department and she ended up operating very independently. Once her setting up grant was obtained, there was a complete absence of infrastructural and collegial support from her Dean, who said "it wasn't his job to sort out any problems whatsoever". He communicated with her only through the Faculty secretary, "who thought we were just an encumbrance". As Dorothy was no longer tenured, having resigned from Sandstone after disagreement on ethical grounds with the treatment of an incident in her previous Department, her position as Director of a Centre in this Faculty became "a problematic role in a very problematic place in the structure". With the Centre's first review approaching, Dorothy attempted to lobby political support by approaching a number of people at Sandstone, some at levels above the Dean, hoping they would influence him to show more conventional support for her Centre and reassure the external Funding Body's review team. This did not work, Dorothy related, because while those people admitted there were problems with the Dean, they were not willing to do anything for a newish Centre when the university hierarchy "would have liked us to be doing something different". In consequence, said Dorothy, the Dean's lack of interest and infrastructure support left the review panel: "uncertain how much was I doing the right thing ... like how much was the university and how much was me. I pointed out that

he never telephoned me, he never replied to a letter, he never acknowledged the copies of the annual report, he never visited the Centre ...". This lack of interest became the main issue in the review and resulted in the Funding Body's eventual recommendation that Dorothy transfer her allegiance to Wannabee.

At our interview several years later, she still puzzled over the attitude of the Sandstone Dean: "We were doing all the things we were supposed to do ... and I still don't understand quite why ... they wouldn't ..." (incomplete sentence). In retrospect, she thought that as the Centre's work became reality, the Dean realised its objectives (focussing on two comparatively powerless, low-profile sections of society) involved strategic social and policy oriented research that conflicted with his own disciplinary orientation: "He does not see the kind of things we do as worthwhile in any sense".

The Perspective of the Wannabee Hierarchy

The hierarchy of the Wannabee university to which Dorothy shifted allegiance were attempting to develop a flourishing research culture, although with a much smaller number of research Centres than existed at Sandstone. The Dean of the newish Faculty to which Centre D was attached had senior management experience outside academia, and was proactively building the research effort. Originally part of a College of Advanced Education without strong research traditions, this Faculty was described by Centre staff as "the most successful, most expanding Faculty at Wannabee". The university's research policy indicated that Centres should "enhance the national and international standing of the university", preferably through multi-disciplinary research. Funding should also be external and continuing. Centre D clearly met those objectives prior to its transfer, as its base grant from the Funding Body still had several years to run.

The Faculty's research Centres, said the Wannabee Dean, were "problem focussed rather than traditional discipline focussed, and helped boost its research profile". Dorothy and the other Centre Directors reported to him in "a very loose kind of arrangement", although restructuring plans were circulating, which included moving the Centres into Schools. Any internal jealousy in the Schools was apparently not directed at the research Centres, as their considerable expertise complemented the work of Departmental staff with limited research experience, who were heavily involved in teaching. The Dean saw his required authorisation of the Directors' expenditure as a formality: "it's their money,

I just sign off". According to a Centre D researcher, "one of the pleasant things about coming here, having been at Sandstone, was the interest the university took in us in the first twelve months". The Vice-Chancellor visited them for morning tea, the Dean had organised a special function for them to meet other administrators, and communication was ongoing, "so there is a sense that our work is appreciated, and the research is supported as part of Wannabee's commitment to Centres" (SRF). Dorothy told me: "we'll be protected by the Dean having a very ... positive attitude to us, and the Deputy Vice-Chancellor for Research as well".

The Perspective of the Funding Body

Because of the recurring substantial grant it provided for Centre D, the Funding Body's administrators had an equal if not greater interest in the Centre's objectives and achievements as did its university host, and Funding Body representatives conducted the reviews of the Centre. As the Centre's researchers were settling into an improved relationship with Wannabee, Dorothy was approached to head a prestigious unit overseas, which for career and family reasons, she decided to do. However, filling her vacant Director's position proved extremely difficult. The person acting as Director during this time saw the job requiring a very rare combination of skills, with insufficiently attractive conditions offered to attract academics of appropriate standing:

There was no ... security of employment, people coming at that senior level wouldn't take a job like that. People who might be available usually have a professional partner needing to be placed at the same time - a very difficult thing. The danger for Centres is that they become very specialised and they do become the Director's Centre. (former Acting Director)

At that stage, relationships between Wannabee and the Funding Body became strained, partly because of personnel changes, but more fundamentally because of differing ideas of their respective obligations in regard to the Centre.

The Funding Body regard us as one of their ... as ... ownership, you see. [Wannabee] was quite clear that as a research organisation, the Funding Body should not interfere with the hiring of staff; that is not their responsibility. They didn't actually inform the Funding Body about the process of replacing Dorothy and the Funding Body got upset and concerned about it and ... starting asking for reviews, as they can do. (former Acting Director)

Several unscheduled, largely unexplained reviews of the Centre were extremely stressful for staff: "It was hard to know what the second one was about, because it had different terms of reference on successive days". The importance of having a Director in place then became painfully evident, with the Funding Body's administrators providing a deadline for when Wannabee should appoint a new Director and threatening withdrawal of funding, should this not be achieved. The collegial structure and absence of hierarchy in Centre D then proved a disadvantage. For example, a professional friend of the Centre tried independently to devise a solution to the problem, but failed to discuss this with the staff because "there wasn't anybody senior enough to discuss it with, in his mind", despite an Acting Director. Also, Wannabee and the Funding Body regarded the Centre's staff as "children, or inferior, and might liaise without informing us. So, it was a triangular struggle between the university, the Funding Body and us" (former Acting Director).

Meanwhile, the staff continued to work on their research, partly in conjunction with Dorothy overseas, through electronic mail, fax and a return visit she made. "We still got our papers written, we still met deadlines, we still worked" said one. Their loyalty and commitment to the aims of the Centre was such that none left for other positions, despite the uncertainty regarding funding: "I think there'd been an outside view that the Centre was really just Dorothy, because she is this wealth of expertise and knowledge and is a very special person, but in a way that was the proof of the pudding - that we could survive eighteen months without Dorothy here" (Research Fellow).

The Director's Perspective

Eventually, the Wannabee hierarchy appeared to recognise the value of the Centre's current and potential contribution to the university, and offered Dorothy the Director's position with improved conditions, hoping she would resign her prestigious overseas post and return to Australia so the Centre might continue to exist. After considerable thought, Dorothy decided that the Centre she had effectively created deserved to survive, and without her presence this was unlikely. "I couldn't let it just vanish" she said, "I didn't negotiate this because I didn't think of it at the time, being too caught up in the decision, but on my return, the university gave me tenure".

Centre D was formed to provide more and better research-based information aimed at changing policy and practice and to provide an educational function for its sector of interest. When it was set up some six years previously, the research area was very underdeveloped, attracting little funding. Dorothy's idea for a Centre combined her interests across two areas usually covered by separate subdisciplines, despite their clear relationship: "Although there's a lot of research done in separate Departments, often on the same floor, those people don't talk to one another [and have] a very hard scientific orientation". Concurrently with her earlier part time position at Sandstone, Dorothy had established an external information service in her area of specialist knowledge. Creation of the Centre meant data from that service could be used as an input to further research: "There's no point in collecting data [...] unless you're doing things with it". Also, the Centre provided a teaching focus for postgraduate students who were able to gain practical experience in the methods employed in the Centre, experience which was previously "quite hard to come by in this state". Dorothy explained that:

[This speciality] is a large component of degrees in [some overseas countries] but anywhere else, it's really ... almost non existent, meaning people - although it's got a lot to offer from a theoretical point of view - never get taught about it, they never think about its relevance to other classic issues. Getting a concentration of people together with the right skills would, I thought, put pressure on postgraduate courses here, or we could run a separate elective course.

Dorothy thus had compelling reasons for setting up a research Centre. "It was very inspiring to try and bring all those things together with a group of people like my colleagues", she said, and four of the initial five colleagues were with her still. Members of the group were interested in research that was "worth doing, and mostly, that's enjoyable. If we want to do a piece of research it's usually because it either comes from previous research or it's an issue that's suddenly become more important, so if we want to do it, we want to do it, and we would persist to the point when we were funded". At my second visit eighteen months later, some of the results of the Centre's work were being included in recent policy documents, which would have flow on effects for the community.

Financial Situation and Implications

Apart from the Funding Body's base grant, Dorothy had been fairly successful in attracting research funding of \$200,000 in the Centre's first year and \$500,000 in its sixth year. By then, the base grant provided only 45 per cent of total funding, compared with the 60 per cent it had originally provided in 1991. This base grant paid the Director's salary and those of three support staff and two senior Research Fellows with specific skills essential for the Centre's work. The other eight Research Fellows and students depended on project funding or fellowships from national or professional bodies, usually multi-year grants. Contract research was not usually undertaken for several reasons; the money offered did not "in any substantial way cover the real costs of the project", available contracts did not offer work suitable for writing up as academic publications, and Dorothy saw employing staff on contracts as: "too insecure. I would not be happy trying to support these people with tiny bits of three months here and three months there. If we take on extra people, somebody from this group has to supervise their work, so contracts are not available in the right kind of way to solve our problems".

The acquisition of funding required much persistence and ingenuity, with grants from as many as three different sources sometimes required to fund one project. A senior researcher said: "If you want money, you do not assume you are going to get it from the first try. We are always living on the edge, so we have extra skills and resilience and perhaps are better at selling ourselves". Dorothy was concerned the Centre could not offer staff tenure or a career path, and she recommended they participate in Wannabee's promotion processes, to achieve formal (though unpaid) recognition, "as a back up justification for whatever salary you're applying for in terms of funding". Grant applications were usually for competitive funds, and unsuccessful applications were reworked and resubmitted in later rounds. Vignette 5.1 below presents Dorothy's story of the struggle to fund one particular project. Although eventually successful, this application was allocated reduced funding for the Principal Investigator, who would need to drop a whole grade to manage on the available money. Dorothy, knowing the part this person's earnings played in providing major support for five people, suggested she seek

Vignette 5.1

We originally applied three years ago with the major proposal, which was unsuccessful. There were two other small associated projects. Both of those got funded ... eventually. The first went to two other funding bodies, one of whom didn't even shortlist it, but the other one of whom funded it ... and the second one, for a PhD student, was funded through a training grant, from a fund which wanted to help people do research, but because there wasn't enough research going on, they were giving grants for conference attendance. When B [the student] applied for \$25,000 they were overwhelmed because they'd never given anybody that much money. So it took twelve months of negotiating before they finally decided to fund her. Two years ago, we reapplied for the main grant, but although it got a high rating, they didn't fund it, because of my leaving. Last year we applied again and it was well rated, but they said it needs some fine-tuning in several parts. So this year we've put it in again, having done the fine-tuning, because ... we want to do it and we think it's important.

other employment to maintain her current income, but the researcher, one of her original group, had no wish to leave: "There's just no way I would consider going anywhere else, even if we can't chase up the difference in funding elsewhere. I'm all too conscious of what a special workplace this is, and what huge potential there is to learn from Dorothy, having worked with her since 1989".

Interpreting the role

Because of the need for most of Dorothy's colleagues to undertake further study, she was happy to take a more active, visible part in the research in the Centre's early stages. While she saw it as her job to provide "any kind of help" her colleagues wanted, her aim was: "that I do less and less and they do more". In combination with readily offered assistance and advice, she was able to let younger colleagues develop individually along the lines of their interest and developing capability, without imposing her own view on the research. This combination of freedom and control, as in Barry's case in Centre B, once again engendered strong loyalty among her staff. Dorothy believed that people had a right to be consulted and to voice opinions on decisions affecting their welfare, with this right extending even to the youngest staff member. She saw ethical conduct of research and research quality as very important, and ensuring these to be part of her role, as was "making the Centre run smoothly". Her Director's role was an opportunity for treating

colleagues with respect rather than maximising her personal prestige. “I don’t have a hierarchical view of the organisation, and this doesn’t really exist here”, she said.

Enacting the Role

“Not just trying to succeed at any cost” Dorothy demonstrated her strong commitment to ethical behaviour by resigning her tenured post at Sandstone after “a dispute over what I believed to be scientific misconduct, not properly investigated. I decided I couldn’t stay. It sounds extraordinary but ... I didn’t want to go there any more.”. Given the current difficulty of obtaining tenure in Australian universities, this action showed she was prepared to make personal sacrifices to uphold her principles. In each interview with Centre D researchers, the word “integrity” arose spontaneously when they discussed the Centre’s work. Dorothy and her initial group of colleagues met when participating in a professional exercise related to policy issues concerning the welfare of the people who were now the focus of their research interests. Members shared a belief in their responsibility for doing research with integrity and, “not only doing it, but being seen to do it, and I think that is something Dorothy is very strong on” (Research Assistant). A postgraduate student described the Director’s “commitment to the means being as important as the ends”, and how “research in the Centre was done honestly, looking at failures as well as successes, not just trying to succeed at any cost”. One mature doctoral student, hoping to stay with the Centre after completing his thesis, commented: “it’s a nice place to work, because the sorts of values that lie behind trying to do something about improved care for others also carry through into how staff are looked after”. The underlying ethical foundation of these shared values showed through in practice, firstly in the care extended to human subjects during the research process, and through the attempts at changing policy, so the whole research population might enjoy improved conditions; and secondly, in the care extended to those working in the Centre.

In accordance with these values, Dorothy believed that people had a right to be consulted and to voice opinions on decisions affecting their welfare, with this right extending even to the youngest member of staff. When I broached the idea of using Centre D as a case in this project, Dorothy delayed approval until the other staff had also agreed to grant me access, whereas each of the other Directors gave approval on the basis

of their individual authority. She followed the same procedure when I asked to read the recent review documents, and again when I asked to observe at a staff meeting. One researcher told me that: “decision making processes are always participatory, although the Director has final responsibility; we’re not a collective ... a very important distinction ... but there are ways of participating, by staffroom discussions or by a working group to seek others’ comments. If anyone’s unhappy about a decision, that can always be discussed”.

“Growing her own” Because of the new research focus and methods of Centre D, there were too few local researchers with adequate qualifications and experience to form an academic nucleus, so Dorothy effectively “grew her own staff”. Her inaugural colleagues joined the Centre because they wished to achieve social change, and Dorothy embarked on a slow and steady process of raising confidence, encouraging part time study and other developmental activities, finding opportunities to fund their projects, and always being “accessible and approachable” to discuss research issues and everyday problems with them. This was despite the busy professional life she undertook as a local expert, in demand for advising on outside projects, contributing on committees, and still undertaking projects of her own, often “in her own time”. Several staff were working on Centre projects as their doctoral theses, most having completed extra Diplomas and Masters’ degrees. Dorothy’s approach was genuinely enabling for staff. Her aim was: “as soon as two staff complete their PhDs next year, I’ll be able to not be Principal Investigator on their projects, as I am at present. Basically, if people want any kind of help then I see it as my job to provide it”. Members of Centre D shared the progress of their work with the Director and others at all stages. Dorothy needed to satisfy herself as to the standard of the work, and suggested that “if somebody wrote a paper I didn’t feel very happy about, I’d certainly want to sit down with them and redo it, rather than just send it back to them ... but that wouldn’t usually happen, because people would do it in a more collaborative way, it would be planned properly”.

“Quiet Incremental Diplomacy” Dorothy also interpreted her job as “making the Centre run smoothly”, which appeared to be a feature of her style. At staff meetings, she provided recognition for any initiatives or achievements, but especially so for Centre-wide activities such as computer committee, annual report production and newsletters.

Her attitude was described as one of “watchful expectancy”, providing encouragement to persist through difficulties with work underway, but showing “fairness about what is being asked for” (Student). Practice sessions for conference presentations and media interviews, and journal club meetings, occurred regularly for sharing results and ideas, and provided a way of communicating the standards expected. These provided ample opportunities for the academic discussion and thrashing out of issues which were “incredibly healthy conflict” according to one Research Fellow. While the active involvement in projects by people from many different academic backgrounds generated some disagreements, Dorothy attempted to solve this by initiating discussions between the parties, using, as one person said, “quiet, incremental diplomacy”. That person related:

There are some continuing difficult issues, where the Director particularly, but also other staff, are impressive in picking up where there is conflict and doing their best by, indirectly and directly, tackling bits of it, and a lot of the surface difficulties have been dealt with, although there is probably still underlying staff tension.

The same person also suggested that dealing with conflict in this way reflected “the culture [...] the core values of caring for each other” so that even when conflict occurred, it was managed, “not perfectly ... because conflict never is”, but with some sensitivity and care in defusing it: “Pretty effective, in that you often have persisting endemic hostility when there has been conflict between staff. That is very demoralising for people ... damaging. I don’t have a sense of that here”.

“Part of the Family” Many personal and professional events were celebrated in the Centre, for example: “when something exciting happens to a person”. On the other hand, maybe when a grant failed to come through, or a setback in the research occurred, that disappointment was also shared by staff. One researcher said: “One of the nice things about working here is that you are part of the place. You know many things about people’s lives”. Another compared working in the Centre to being part of a family. Staff were encouraged to develop their own interests and grow in capability, without the hierarchical barriers existing in some other workplaces: “We offer each other care and support, crossing boundaries between work and personal life (while maintaining

appropriate boundaries), so that staff receive understanding and support in difficult times, and provide extra time and resources when required, without balance sheets being kept”.

“Letting Go of the Idea” With no managerial training, Dorothy saw that her way of operating had benefited from “being a parent”, in that parents eventually became “redundant” as their children grew. One of her colleagues identified the importance of being able to foster the work of others, while “letting go ... of where a research idea might have gone, because someone else has taken it on. I think that the Director who can’t let people say it somewhat differently, or do it somewhat differently than might have been expected doesn’t get the best out of their staff, and misses out on the variety and diversity that results”. Although she expected few Directors would possess that particular capacity, she considered it “really critical, really crucial, in our development”, because of the novice situation of so many of the Centre’s staff. A Director with Dorothy’s wealth of expertise and background would, she suggested, usually feel tempted to step in and rephrase or redo everything rather than letting the learners develop their own approaches and ideas. Had that occurred in Centre D, she said, it would have been “The Director’s Centre” and no-one else’s, and would have collapsed during Dorothy’s time overseas.

“Becoming Obsolete” Dorothy had always worked with less experienced colleagues by “giving them options”, rather than by direct delegation, at least prior to her return from overseas. Since then she had become more conscious of the need to develop visibility in areas other than research, and had begun suggesting that others individually undertake projects in which she had formerly expressed joint interest. Colleagues saw a change in Dorothy since her return: “I think it has been a growth process for her” (Senior Research Fellow). While she would have preferred to conduct research full time instead of being Director, given the choice, her thinking after six years was that “it would be nice if I could offer [managerial responsibilities] to someone else, but that’s not possible. It’s not something that I like doing, but I’ve got to do it”. Activities she was referring to here included taking a more active role in promoting the Centre, engaging in business and financial planning as well as research planning, and conducting a wider search for funding, including from overseas sources.

Watching the success of her colleagues, whose achievements often sprang from her training and encouragement, was something the Director compared to the pleasure of

seeing her own children grow up and do things she had never personally considered. Her aim in both situations was “to become obsolete. I wouldn’t have believed that was what I was actually doing, before I had children, and I can see it’s going to be true here in the Centre as well”. Her major frustration was the time and effort involved in the ceaseless search for funding, “that is, the degree of uncertainty in life”, and the consequent inability to reward colleagues at levels they might achieve elsewhere: “all we can offer here are the benefits of doing a job you really enjoy, with a lot of autonomy”. In spite of this difficulty over monetary and status rewards, her colleagues showed a genuine appreciation of those benefits and a clear commitment to the aims of the Centre: “What we are here to do is really important, and we are all committed to that, despite the uncertainty about funding”.

Contextual Influences

Dorothy’s initial experiences at Sandstone appear to have been unusual for a Director, in being effectively disowned by her Dean. She had nominal status in a Faculty where all other Directors reported through their Professors to the Dean (should they not already have professorial status), rather than directly, as she did. She and the Dean had different views of his role; for example, she was disappointed at his refusal to chair the Centre’s Advisory Committee, an official responsibility, and his delegation of this to a disinterested Head of Department who rarely attended meetings, meaning that the meetings were chaired by “whoever was the most senior person present”. While Dorothy was a successful and internationally respected researcher, she had no managerial training or experience and appeared to have accepted that she would have to manage the Centre without collegial support. The Dean’s refusal to reassure the Funding Body’s review team that improvements in Sandstone support would occur, a most unusual attitude for a member of a host university’s hierarchy, resulted in Centre D’s change of affiliation.

While Dorothy’s motives for leaving the Centre included “family reasons”, she was at that time also concerned at the way funding for her area of science was being incorporated with more general research funding, and by changes among the Funding Body’s advisors to include those less sympathetic to the area. While this threw doubt over the viability of the Centre’s future funding, as one researcher said: “I don’t think Dorothy would have left if she had been better treated here”.

Dorothy's current Dean at Wannabee gave his Centre Directors ample freedom to organise their Centres while providing them with strategic planning and other expertise outside their own experience. Centre D was strategically important to its Faculty, providing research expertise the original teaching academics lacked, and the Dean supported the Centre in conducting research as its primary function. During Dorothy's absence overseas he was working elsewhere, and had this not been the case, it seems the difficulties the Centre experienced with its Funding Body may not have occurred.

Because of the large financial commitment the Funding Body made to Centre D, its administrators were sensitive to the level of support shown by the university, the third party in this three way relationship. Lack of support by the Sandstone Dean, for example, the refusal to provide accommodation for, or reimburse rent paid by the Centre, induced the Funding Body to recommend the transfer to Wannabee. As the Acting Director explained, these people saw themselves having ownership of the Centre, as when they attempted to force the issue of a new Director's appointment, an academic matter, by threatening to withdraw their funding. They and the Wannabee hierarchy appear not to have clarified their respective responsibilities in relation to Centre D, which resulted in political struggles over the heads of the Centre researchers who were treated instrumentally, rather than collegially. Inadequate communication between the university and the Funding Body appeared to lie at the root of the problem. Even after Dorothy's return, the complexity of a three-way relationship continued.

Key characteristic: Enabling

Dorothy set out to grow her own group of researchers capable of working independently towards their shared aims. Most of this inaugural group had stayed with the Centre because Dorothy offered them access to her expertise: "clearly, part of her agenda is to do that training and fostering and nurturing of people's talents" (Student). Also important was the social and psychological support provided from their involvement in: "a vibrant place of work that is really interested in people's welfare, and in a whole lot of different areas. It's a great team and a great group of people to work with" (RA). Commitment of members to the aims of the Centre was so great that most remained happily within its supportive and enriching environment despite the restrictions on pay and promotions, and the uncertainty over funding.

Dorothy saw her role as ultimately “becoming obsolete”, when colleagues developed full competence, which exemplifies a truly enabling relationship. With her returned interview transcript, she provided a note outlining her ‘style’ of leadership, and I reproduce this here for its simplicity and directness.

Vignette 5.2

Style of leadership:

- to pass on skills and experience
- to be confident that people will learn, develop, take on responsibility
- to accept that I don’t (can’t, and don’t even want to) control everything
- to be confident that people, individually and together, bring things to any issue, discussion, problem, piece of writing that I could not
- to be aware that people will go on to do things I’ve done in the past, to do them differently (and very often much better)
- to provide support whenever requested and to offer it even if not asked for
- to provide positive feedback always and negative, if really needed
- to accept the need for me to act on behalf of the Centre with major outside bodies
- to become obsolete.

One colleague described Centre D as operating like a family, with ample support for others and flexible arrangements covering non-work contingencies. Conflict among the group was handled by discussion and diffusion, without leaving an aftertaste. While keeping an overview of projects by “a sense of watchful expectancy”, to ensure quality was maintained, the Director allowed staff to develop individually. The effect of this enabling process was that during her absence overseas, the Centre remained a cohesive group because of the researchers’ interest in achieving the aims they shared. Since returning from a situation where she was appropriately treated as a Director, Dorothy was accepting and refocussing on managerial aspects of her role, and withdrawing from the closer involvement in research she would have preferred.

Situation: Refocussing for growth

Dorothy and her colleagues in Centre D shared a triangular relationship with their university and a Funding Body which provided a substantial annual grant, for a limited period. This grant provided the group with a secure base from which they were achieving increasing success in attracting other funding for the innovative research to which they were committed. Their success was assisted by Dorothy's track record and local and international reputation. While this Centre's area of interest was less broad than that of Centre C, there was ample opportunity for further research. The struggle to generate funding, in an area where initially weak competition had rapidly strengthened, had built resilience in the Director and her colleagues, as they saw determination and persistence paying off. While they admitted to disappointments, there seemed no fear of failure, their attitude being: "if we want to do it, we want to do it", based on a belief that with sufficient persistence and readjustment, their proposals would eventually be funded.

Centre D was unlike others in this study because it had no reliance on commercial funds. The objectives of the Centre and its major sponsor were well aligned, a condition of the grant, so researchers could select their own project topics rather than adapting to the needs of commerce or industry. Compromises for this Centre were however, often needed with the public sector bodies providing funding, and subsequently in obtaining clearance from institutional ethics committees, which could take many months.

Because of this ability to develop individual programmes of research, Centre D was, at my visit, starting to show: "a lovely progression in the work done here" (student). Academically, this was the Centre in my study closest to the ideal notion of a university research Centre, staffed by postgraduate students and Research Fellows following their own altruistically motivated interests centred around a common theme, with ample support from the Director and a mix of disciplinary colleagues generating ideas and critique. Two interviewees commented that ten years of operation, at least, would be needed to judge the Centre's real success, despite annual growth in its overall funding; the major threat to the Centre at that stage was the possible withdrawal of the base grant.

Epilogue

Over the last three years Centre D has continued to grow, attracting steadily increasing funding although staffing levels are relatively unchanged; one or two project staff have moved on and been replaced, with those who leave tending to remain in close contact with the Centre. The Funding Body's grant was renewed for a further three years, and recently again, with the Director and Centre attracting high praise for their work. In 1997 and 1998, high profile ARC/NHMRC grants provided 20 per cent and 16 per cent respectively, of total income. In 1998, 50 per cent of funding applications succeeded, although as Dorothy said, the percentage of overall success is higher because applications are resubmitted, so that very few projects attract no support at all. Most of the inaugural members remain, and can increasingly see the results of their work being included in policy and practice. Dorothy has received distinguished recognition for her work through an honour bestowed by her international professional body. The major hurdle ahead appears to be whether the Centre will survive, if and when the Funding Body no longer provides a base grant.

Centre E: A 'Sandstone' Centre in a 'Utech'

Director: "Ernest"

The third Director in the group of second stage cases, "Ernest", headed Centre 'E'. This Centre had been successful up to the time of my visit, some eight years after it was set up with a large government grant, which was renewed after a successful review. The focus of the research conducted in Centre E's laboratories reflected Ernest's specific interests and expertise. After gaining his initial degree at an Australian Sandstone, he studied for his doctorate at a European university. He then returned to the same Australian Sandstone for several years as a post-doctoral fellow, before taking a permanent position at another interstate Sandstone. Some time later, he was approached by 'Utech', a technological university (Marginson, 1997), to take up a tenured professorship, and to head Centre E. Ernest's motivation was to build a critical mass of researchers undertaking a successful research programme in his area of science. The dearth of experienced academics working at a sufficiently advanced level in this area to succeed in gaining research funds in the competitive Australian environment meant this critical mass had been difficult to achieve. Centre E was situated in a university Department, but its Director was accountable to the Dean of Faculty for the research Centre. This section clarifies the differences in perspective of the official university policy, the Head of Department, and the Director, in relation to goals, funding and research.

The University Perspective

Centre E was located in one of the institutions formerly known as Institutes of Technology, traditionally strong in engineering, business and applied research in industry. At Utech, the hierarchy had wholeheartedly adopted strategic planning. Near the time of my visit, several all day sessions were scheduled for any university staff wishing to participate in the reflection and planning processes. I was provided with strategic, operational and research plans, including a copy of the university's policy for Centres. Some indication of the general thrust of these plans was evident from the fact that in a

three-quarter page section headed 'Rationale for Centres', the word 'resources' appeared twice, and the phrase 'obtain maximum return' once, all prior to the sole occurrence of the word 'research'. One Centre E researcher, however, saw this process stopping at Head of Department or Faculty level: "The plan is not transparent at levels below that, and that's where it would be quite important to make people aware of the plan. At an action level, nothing actually happens."

Research Centres were thus clearly part of Utech's institutional strategy, provided they could attract external grants to contribute to their support. Regarding the criteria of success for Centre E, the written response I received from Ernest's Dean of Faculty listed these as firstly, "ability to attract funding from industry and competitive granting bodies", followed by; "research outputs; ability to attract and retain high profile staff; demand for commercial services provided by the Centre; ability to provide, and generate demand for, teaching programmes; and the general reputation and standing of the Centre in both its professional area and the community". The Dean considered the Centre successful in its achievement of research outputs and provision of teaching, but only "moderately successful" in attracting competitive grants, and in providing consultancies and services to industry. He also wrote: "the Centre is not well known in relevant industries and the general community". Ernest answered my question about the Dean's support for Centre E a little hesitantly: "I don't want to give the idea there is constant friction, but there is an issue, there is a little bit of a difference of opinion. The Dean is supportive".

During my visit to the Centre I was shown proudly through several new-looking laboratories, off corridors lined with colourful poster presentations of recent research, and taken to view the well equipped room set aside for postgraduate student use. When, after some three years, Centre E underwent its first successful review by a team representing the interests of the external grantor, its effectiveness was seen to be limited by lack of space. By the time of the second such triennial review, Ernest said, "we were able to show them plans for the new laboratories". By the time those laboratories were fully functioning, another two years had passed and the security of the government grant was ending. Ernest considered that Centres with reasonably secure, continuing funding were unlikely to have experienced such delays: "It was at university middle management level that delays and problems arose".

The Departmental Perspective

Ernest was on the staff of a Department and reported to the Head of that Department for his teaching responsibilities. Some uneasiness existed in the relationship, originating mainly from the Head of Department. This could be traced to the relative abundance of finance that Centre E had enjoyed to date, compared with the paucity of resources in the Department: “The fact that we had a grant to exist was a source of ... misery for people who didn’t”, said a researcher. Ernest was unsure whether the Head’s feeling for the Centre was “Anxiety or jealousy; anxiety [possibly] because he feels things are out of his control, and if he had access to the Centre’s budget he could patch up some holes in his own. Then it becomes an issue of ‘I’m paying your salary, none of your earnings are coming back to the Department’ ”. (Because of the reported attitude of this Head of Department, who was not responsible for the Centre, being described as “not really a researcher”, I did not attempt to interview him, not wishing to exacerbate any existing difficulties or disadvantage the Centre.) Utech staff working in the primarily teaching culture that existed prior to its university status, tended to undervalue research. This attitude may have been sourced in the lack of profit arising from research, suggested the Centre’s Laboratory Manager, a Sandstone alumnus. “Any money you earn from research goes back into research, to increasing and building on that research”, in contrast to consultancy activities or attracting fee-paying students, which could generate substantial income.

As a contribution to its Department, Centre E offered a part time postgraduate course for employed students. “The applications for that course decrease with each intake, which will have a major influence on the Centre, because one of our prime reasons for being here and having Departmental support is that course” said one of Centre E’s Research Fellows. She considered this decline in applications reflected the closure of a number of laboratories in external organisations which formerly employed scientists doing relevant work, but which now outsourced expertise as required. This situation was attributed to the general downturn in the economy at that time. Another opinion was that as Centre E’s course was very specialised, with heavy time commitments, people simply could not commit the time, or did not want the whole qualification.

The issue of research student enrolments was difficult. To cater for postgraduate students (bringing much higher EFTSU funds) the Department needed Centre E staff to provide supervision and laboratories, which it could not provide alone. At my visit, such students could enrol directly with the Centre. If Centre E were solely in the Department, said Ernest, students would enrol with the Department, not the Centre, which would then be “at the mercy of the Head of Department in getting them”. The Department had in the past retained the EFTSU money from the Centre’s students rather than passing it to Ernest. Because of the approaching termination of the Centre’s government grant, Ernest had recently asked to receive part of this EFTSU funding, however this request was not well received. There was, he related, “a lot of discussion in Australia about Centre-Departmental relationships. If you [leave the Department] I feel you have to be very sure of the continuity of funding and the Centre’s attractiveness to students”. Overall, the difficulties of being in the Department were, he felt, less than the disadvantages of being completely separate: “I don’t think we [Directors] can afford to alienate the Departments more than necessary”.

The Director’s Perspective

The perspectives of hierarchy in the local Utech context outside Centre E meant that Ernest was constantly aware of the need to protect the Centre’s interests within Utech. Staff saw a level of defensiveness in him almost equalling paranoia. He would often regard a university committee’s decision as an attempt to “get at the Centre”, and while that was sometimes the case, staff thought this attitude unjustified: “I’m not sure how much the place does this to one, or whether it’s him...” (SRF).

While the work of the Centre focussed on a particular branch of applied science, Ernest was also continually trying to add to basic scientific knowledge. To secure the government grant, he had needed to develop a fairly broad ranging set of initial objectives for the Centre, and while that breadth had been beneficial in that research results would potentially contribute to solving a range of community problems, it had also been “a burden”. His philosophy was that researchers should be free to follow their good ideas. However as the Laboratory Manager (a former researcher) said, “It’s a great philosophy, but unfortunately, because funding is so tight it’s very difficult to do, and it would be better if some staff had a much tighter brief in the direction of our research”.

Benchmarking against international research standards through peer-reviewed publication was a goal shared by all staff. “I think across the board staff are aware of publication as the primary objective. That’s important in terms of survival; it’s still the measure of success”, said Ernest. The doctoral graduates from Centre E were working in prestigious laboratories overseas. Ernest had extensive international contacts with other scientists, and a number of those people had visited Centre E. As one of the staff said, “We have a lot of international visitors who the beginning postgraduate students can sit down with, this close, and talk about ideas and such. One of the real benefits here”.

Local attitudes towards Centre E within Utech caused two major frustrations:

One is that you have to prove yourself at Utech, constantly. Not nationally or internationally, not to the Vice-Chancellor, but within the institution. It’s the way the game is played. If you produce 20 papers a year and you’re good, that won’t keep us going. The other frustrating thing is that we’ve got a lot of things, in retrospect; you’ve seen the laboratories. They’re very satisfactory, but they’ve been given grudgingly. (Ernest)

In contrast, the predominantly external members of the Centre’s Advisory Committee had provided strong support for Ernest. In his opinion: “It’s been the most valuable grouping. The Chairman advised us in the most positive way and has not interfered with any scientific direction. It has been useful to have a body of six to eight people, of some prominence, to say that the activities are on the right track and the Dean should support them”. Good review reports from the external review teams resulted in renewed funding, showing that national quality criteria were well met. Meeting those external standards helped protect the Centre’s researchers in a university with an inherently different culture.

Financial Situation and Implications

Ernest and his staff had never been welcome within their Department. “When we first came”, said one member, “there was that territorial imperative. We were the new people with an office here and others saw us as ‘Who’s this lot coming into the university and taking grants from under our feet?’ So we’ve had to deal with a fair bit of antagonism and I think that’s made the group very very cohesive, and it’s been an absolute strength”.

At the initial setting up stage, support for a formal group working in the area of science practised in Centre E was forthcoming from several industrial and academic communities. There were at that time broad issues of public concern requiring work in this area of science, and several major multi-year research grants had been awarded to the Centre by Federal government and other public organisations. However, once those projects were complete, there was less demand for that type of work. Several other factors in the external environment also impacted on the Centre. For example, a simple change in a government ruling meant that circumstances in which the Centre's work would formerly have been in demand could no longer be exploited. Staff spoke also of the "fads" existing in science funding.

Recent issues of broad public concern tended to generate work in different fields, rather than for Centre E. Also, over the past five years the types of grants available had changed. An emphasis on support for collaborative work between large institutions had replaced a number of regular smaller grants for which Centre E staff might have aimed. Certainly, strenuous efforts were made, and unsuccessful grant applications revamped and resubmitted the following year, but success had recently been elusive.

When I visited, there was difficulty finding money to retain a staff member whose grant had expired. "I've been to all sorts of places" said Ernest, "it's very difficult when you run out of options". The situation called for a decision on whether to focus the work of the Centre more narrowly, with sparsely adequate funding, or to attempt to spread the funding still more thinly by keeping the person and her research interests within the group. Utech funded a post-doctoral fellow in Centre E, as part of general support for the research effort, but this position was held by another scientist, whose expertise in recent developments was intended to upskill the whole staff. Yet another senior staff member held an 'elastic' position, her official employment depending on the funds available in any one year. While her desired maximum employment was four days a week (0.8 full time), she had been employed during the past eight years on "every fraction from 0.5 full time to 0.9 full time; and I've been on contracts from one month to one year. It is all very insecure". As Ernest said, "you have to be very lucky to get staff willing to show such flexibility". As finance tightened, Ernest had stopped staff celebrating birthdays with cakes or lunches, "because this could take an hour and a half", as one said. He

considered that only academic achievements should be celebrated, causing some resentment among staff who, on occasion, worked through the night on urgent jobs.

The external grant formerly held had protected Centre E within Utech, because of its associated prestige. As Ernest explained:

[ARC/NHMRC- type] funding is prestigious, and they [Utech] weren't going to knock us about as they would if they decided one of the Centres on campus was not performing - they would shut it down. We had to meet external review criteria and they let us do that, and we were able to do that in the nine years we have been active. We have been, in a way, protected by that special situation.

With the demise of the external grant, Ernest explained, Centre E staff were “to be considered favourably for any available vacant Departmental positions, with the intention they continue their research activities in the Centre. [But] only on the basis that if there's any staff member with a scientific interest [fitting the vacancy]”. Two staff had gained tenure in the Department in this way, and while one was still deeply involved with Centre work, the other had apparently “defected” and begun work on a different research programme, reducing the Centre's resources.

Ernest was expected to generate consultancy work to supplement other Centre funding. He originally had a low opinion of this work because it was often “not research” in that it did not add to knowledge. Several staff avoided this work which often came at short notice, needing reorganisation of other projects and longer hours of work to meet deadlines, however others were “very understanding of the need, so you never have to twist anyone's arm to get them to put in maximum effort”. Ernest had come to view the consulting projects “much more positively” over time, as they kept him in touch with real world problems, and he seemed keen to do more of this work, which was charged out at full cost, earning profits which mostly flowed back to the Centre. He could not afford to split the consultancy profits with staff, as he knew other places were doing to supplement salaries: “I think we really should, but despite that, the staff is that committed to the core business of the research they don't want to do it. If they get really frustrated, that could change”.

As the Laboratory Manager said in regard to funding:

People have a very good understanding of medical research, because it immediately impacts on them, but I think lack of understanding of the importance of our research

often stands in our way. I guess the onus is on us to sell ourselves to people. Funding is ... the main obstacle to our research. All the other things, we can overcome, but ultimately, we can't overcome any of them unless we have the funds to do so.

Interpreting the Role

"I never saw myself as a manager" Ernest saw himself as a scientist, and he put great importance on the involvement of an inaugural Director in developing the initial proposal for a Centre, rather than being appointed later in the process. He had less respect for "career Directors. I didn't become a Director to manage something. I'd rather try to manage something to run the research program - a slightly different approach. I feel in order to do internationally respectable work you need to get your heart and soul into it".

Ernest saw his role as being to provide "leadership, but from the same level as the staff". Although the Centre was formed around his own research interests, he allowed his group considerable traditional academic freedom to follow their individual interests, despite the increasing need for a more commercial approach. Postgraduate students were included in the Centre group in a way not always done elsewhere at Utech; "we act like a group of researchers, whether we are staff or students" (Ernest), which provided the students with an excellent introduction to scientific life. At staff meetings, Ernest aimed at giving the students a wider view of the discipline, so they had a conceptual appreciation of how their separate projects were connected, rather than working in isolation. His overall responsibility as Director he saw as representing and defending his research group against the attacks he perceived as emanating from various quarters at Utech.

Enacting the Role

The effects of "a very active administrative life" The "very active administrative life" demanded of the Director by Utech, and his teaching contribution, now left him little time for his own research. He was often engaged, said one RF, in discussions with other research Directors about "how to handle various dramas". He scheduled regular meetings with his postgraduate students, whom he co-supervised, but hesitated when I asked how many there were, eventually replying, "I think there are six". Ernest relied heavily on some senior staff members to deal with personnel issues within

the Centre. He told me how a senior female academic was “a very good stabilising influence” who in cases of disagreement spent time talking with the people concerned, to help them reach understanding. She, in turn, told me how she acted as a buffer between Ernest and the “very unhappy part-time students who felt he didn’t listen to them, or care about them. I’m a sort of intermediary; they come and tell me things they wouldn’t tell him”.

The Laboratory Manager was tasked with control of the laboratory and its equipment, with training incoming students in the accepted ways of working therein, and as a conduit for channelling people’s complaints about others: “I make the lab realise its issues”. She was concerned about the unfocussed nature of the research programme and the way it was reflected in the Centre’s publication profile. This was particularly true for the Director, who published with his PhD students, and whose record showed diversity rather than a concentration of expertise. This she considered likely to hinder his success in obtaining funding. Despite the urgent need to secure alternative funding, there was very little effort to market the Centre to potential non ARC/NHMRC type funders. Upon a staff suggestion, a brochure (on pale grey A4 paper, folded thrice) had recently been produced to promote services the Centre could offer. After limited circulation, “we plonk them around at conferences”, this appeared to have generated some enquiries, and may have contributed to the increase in consultancies in recent years.

“Playing his cards close to his chest” Staff agreed that while the very broad initial goals of the Centre had been achieved, not all knew the current goals. These were not listed in the annual reports with which I was provided, which featured Centre achievements and reported the distribution of the initial grant. The review teams had apparently given the Centre very good reports in some areas, but Ernest did not share those comments, nor any negative ones, with staff. He simply conveyed messages of general approval: “They think we’re good”.

The Laboratory Manager found Ernest’s lack of communication with researchers frustrating. Her job would be much easier if the Director gave clearer guidelines for research to the academic staff, and saw a need for better forward planning and ensuring people knew the goals of the Centre: “Research is done just a little bit too secret, up till now.” She was often not free to convey to others the reasons for certain resource

decisions, and had to bear the brunt of their dissatisfaction. Centre E staff discussed issues among themselves more than with their Director. Although seeing himself having a friendly relationship with everyone, he recognised that “You can’t always be friends to everybody.” Possibly because of his perfectionist tendencies, he was averse to praising his academic staff, although as one said, “he will often tell people ‘you’re not doing the right thing’, which is a pity, because it has a really bad effect on morale”. The staff tended to give each other consistently supportive feedback and constructive criticism and as most had been there four or more years, they had adapted to Ernest’s style. He did compliment the two administrative staff quite often, possibly for their managerial or administrative skills, which he lacked, but saw the academics as “knowing how things should be done. They know”.

Ernest’s role model was his former doctoral supervisor, who used a consensus model to organise his team. His own wish for consensual action seemed to exclude structured internal planning and its implementation, so that while some staff happily worked very independently, others wished for more direction so their place in the picture was clearer. Ernest’s wish for staff to have academic freedom also had its downside, in lack of project planning: “You come in this morning and you think you’re doing *x* thing on your agenda, and suddenly something’s hurled at you because we’re in crisis mode. The work you thought you were going to do becomes your crisis” (RF).

Occasional round table discussions were held, usually at staff suggestion, attempting to re-evaluate directions and plan ahead. However people were disappointed that subsequent steps to implement the ideas raised were not usually taken. “It’s like wrestling with a jellyfish” said one researcher, “the next step hasn’t been taken, unless a strong personality takes something up and develops it”. Ernest also mentioned these meetings, but saw his role in them in a rather different way:

My role is to lead that [discussion] and try to get some coherence in it. I see my role as mainly trying to get the younger people to see what their next door neighbour is doing in the program, because they can very easily get lost in their own activities and not relate to ... I try to form that sort of bridge between individuals ... so they’re working jointly rather than individually.

These contrasting attitudes appear to show a lack of clarity in relation to the meetings’ objectives.

"People just had to be adaptable" The relatively small size of the Centre (10-12 people, some part time, plus students) gave it flexibility. The group was very multi-cultural, "so they had to consider other ethnicities and religions, and people have had to adapt to a variety of visions" (Research Fellow). Ernest had searched for this group of people, providing a chance for students with perhaps "not the top marks", according to one researcher, although "he's been really successful at getting really good people from prestigious places overseas, for lousy money. Taking a lot of time and effort". Space was so restricted, prior to completion of the new laboratories, that "people really had to cooperate to share equipment in working together. People just had to be adaptable over everything, from food preferences to what looks like cultural arrogance, and it was very good for them all!" said one mature researcher, astutely. A further spinoff of the small size and unstructured nature of the group was the latitude allowed people, within the parameters of the work, "to sort of ... grow it themselves, and while they find that frustrating for a long time, and I don't know that I'd recommend it, at the end it produces a really terrific individual with a lot of confidence, because they've just ... done it themselves".

Not "nine-to-five researchers" Staff in Centre E showed exemplary dedication to their craft: "You don't go into research unless you know you're going to like it", said one of the inaugural staff. "I find it more comfortable here, in that the mentality is not blinkered", said a post-doctoral fellow, with a varied employment history elsewhere. The Centre's administration officer described how: "When Dr M first came here, he could sit and talk and talk to you about his research, and it makes you think what a positive thing he's doing. Some people I've met are really nine-to-five researchers, but our group are seven days a week, to find the answer. Or even if they're getting there. It's so exciting!". All mentioned the excellent camaraderie and supportive atmosphere. For example: "It's very special. I've had the Director do my photocopying! When the chips are down, everybody will do just anything for anybody else, which is fantastic. They're really wonderful people!" (RF).

"Achieving international standards" Ernest's scientific ability and his concentration on meeting international standards were noted as strengths by several interviewees. "He's a very good ideas person", said one staff member. "He has a very

global vision, for Centre E, for Utech, for Australia ... it's quite extraordinary" said another. "He's a very lateral thinker. He's a perfectionist, which can get in the way, but mostly, it's good! It's part of the professional thing; it wouldn't matter sometimes, what we've done will never be right." Given the Director's aim of achieving excellence as the key to continued success, he strove to make the research task as nearly perfect as possible.

Contextual Influences

Ernest said that Utech had apparently "suddenly moved into [our area of science]" despite its traditional strengths in other areas, meaning that Centre E was to some extent isolated within the institution. Many Utech academics had no research background and little understanding or appreciation of what research involved, and while the V-C appreciated Ernest's achievements, this was a fairly distant relationship. However, uniquely in this study, all Utech research Centre Directors met on an ad hoc basis, in a forum instigated by the Deputy Vice-Chancellor (Research), which offered them collegial support.

Utech's official policy gave the impression that funding generated by its research Centres was at least as important as their research outputs. Ernest had chosen to report as Centre Director to the Dean, who had a research background, in preference to reporting to his current Head of Department, who did not. This Head was not entirely comfortable with the Centre's independence and comparative financial affluence to date, and would have liked greater financial control over the group. These are entrepreneurial perspectives not unexpected within a technological university with a history of work in applied fields and under pressure to attract external funds. The adoption of planning by Utech management required Ernest to provide frequent, time consuming input to the plans, and this, along with expectations of him, as a professor, for participation in Faculty affairs and teaching, ate into his time for research. The difficulty of complying with university requirements in an unpredictable funding environment was evident. Ernest related how: "We have had two Centre Directors' meetings in the last six weeks where every one of them expressed their concern regarding the budgeting process, where we have to put in a budget without knowing the outcome of research grant applications".

Ernest and his staff were primarily concerned with meeting international research standards and inducting postgraduate students into a close-knit research group. The

somewhat unwelcoming attitude at Utech engendered a strong loyalty among the Centre E researchers, who formed their own cultural enclave within the university, in a similar way to the “siege mentality” Barry saw in his group since their move. Centre E’s period of relative affluence was fading, with various factors affecting its access to ongoing funding. These included a law change, movement of political support to new community issues unrelated to Centre E’s work, an altered government grants regime, and a general economic downturn. The Centre appeared to be entering a period of financial difficulty unlikely to be alleviated by limited consulting opportunities. The Director rejected a managerial role and appeared not very proactive in developing local funding partnerships.

Key characteristic: Defending

Ernest’s two major frustrations were both associated with the Utech culture. He needed to constantly prove himself below V-C level, despite a well established national and international reputation in his scientific area. In addition, the infrastructure support he had eventually received from Utech in the form of laboratory workspace was given, not with generous recognition, but “grudgingly” after prolonged delays at middle management level. Operating in this context for many years had developed in Ernest an attitude his colleague described as unnecessarily defensive: “a threshold of paranoia”, in that he regarded many university decisions as “people trying to get at us” (RF) when this was not always so. Ernest saw the support given by the Centre’s Advisory Committee as balancing out negative Utech influences. He was expected to play a more active part in Faculty affairs than were the Directors of Centres A, C, D or F, and needed to be “up there, talking to other Directors about various dramas and how to swing them” (RF), suggesting himself that his involvement in talking to the [university] politicians was “part of leadership too”.

The number of refereed publications achieved by Centre E researchers made it one of the most productive units at Utech. This was, said Ernest, “the primary objective. That’s important in terms of survival, it is still the measure of success”. While this strategy forced a level of recognition from within Utech, and maintained the Centre’s international reputation, on few occasions had community level publications been produced, as a link with external groups, unlike in Centres C and D. Some discussions on

the need for action of this kind had been instigated by staff, and eventually, some action taken by production of an advertising brochure.

While Ernest “believes in his staff and supports his staff. He fights for the Centre and for the people that are here” (Post-doctoral fellow), his own research was sacrificed for three or four years, to the extent it worried him to think how little involvement he still had, and he was trying to increase this. His publications, generated from advising and supervising others, made his track record appear to lack concentrated expertise. Meeting the demands of teaching, including some at under-graduate level, and his active administrative life, prevented him from developing his own research programme to provide a more unified direction for the Centre and for his group of younger colleagues, who were as yet relatively unproven in the funding arena. His belief in academic freedom meant less focus in the programme than some colleagues wished. Driving his staff towards dedication and perfection in their work appeared to him the best defence of his Centre’s reputation for academic excellence, to maintain his position in the international circle forming his real peer group. It did, however, seem doubtful that academic output alone would be sufficient to ensure Centre E’s continued survival.

Situation: Struggling to survive

So far, Centre E had been protected within Utech by the renewals of its external grant, which provided opportunity for creative exploration of research directions, with some good work achieved. This grant had been renewed for the maximum possible time, and was about to cease. In the Centre’s early years the external funding environment had favoured Ernest’s group, and a large multi-year grant was obtained from the Federal government in addition to the renewable grant, providing a comfortable financial base. More recently, political and other external factors had changed attitudes towards the need for research in the area of Centre E’s work. As a local expert, and Director of one of the very few Australian research groups working in its specific branch of science, Ernest was in one sense in a strong position in having little expert competition for funding or consultancy work. The absence of a larger pool of expertise, however, meant he represented only a small minority in a large population of scientists, many of whom were part of larger minorities with wider influence and support.

Also important was the fact that the Centre's work often resulted in unpopular findings. While there was a clear social advantage for funders in knowing what to avoid, this attribute was a disadvantage in attracting funding, because the prospect of more positive outcomes from other areas of science was more attractive. At my visit, a state government Department was funding a Centre project - a rare occurrence, according to the Laboratory Manager. While Ernest had been to "all sorts of places" seeking funding for a staff member, it is unclear whether those places included all possible funding sources, or whether the efforts of a marketing specialist might have uncovered further possibilities amenable to nurturing, in the way Arthur had done for Centre A. The Dean's comment (and his scientific speciality was in an associated area) that the Centre was not well known in relevant industries and the general community, indicated the possibility of untapped prospects. Certainly the production of a brochure advertising the Centre's services appeared to have generated some consultancy interest. The Laboratory Manager stressed the importance of a Director's communication skills: "... his ability to communicate his goals to people outside is [...] important because that is the way we make people believe in the work we're doing and ... encourage them to support us, so if a leader doesn't have that ability then I think they will lose credibility in the long run, with their staff anyway ...". While a reduced level of funding was in place for the coming year, Ernest was unsure of Centre E's future from then on.

Epilogue

On my return to New Zealand, communication with those in Centre E stopped abruptly. Six months elapsed before I received the first transcript back from anyone in that Centre, and Ernest has never returned his interview transcript, despite several polite reminders. I attempted to secure a Centre annual report for the year of my visit, and that following, to assess the Centre's situation, but my later visits to Australia coincided with those times Ernest was overseas at conferences. The administration officer took all incoming calls for the Director, and I knew he would often be unavailable. Annual reports were never produced until nine or ten months after the end of the calendar year, and I had eventually to request the recent reports from the Research Office at Utech.

The outlook for Ernest and his staff appeared unpromising. His Department had made recent economies by cutting funding for the administration officer's position and combining her duties with those of Departmental support staff. When we spoke on the telephone she told me she now worked in the laboratory, "fifty hours a week and not getting paid for that". She refused to photocopy the most recent annual report for me, even when I offered payment for work done after hours, and said that my emailed questions to the Director about the Centre's progress "weren't in the scheme of things".

Centre E appeared to be engaged in a desperate struggle. In the first year after the cessation of its base grant, total funding was less than half that of the previous year. While consultancy income included in this total almost doubled, that contributed only 18 per cent of the year's total income. Recent strategic plan summaries showed Ernest's attempts at funding to be aimed principally at the ARC/NHMRC grants, where his chance of success against intense competition was one in five. Grant income for the two years after my visit was also less than half that in the years of the base grant. Operating deficits in both these years meant the Centre's reserves were rapidly disappearing. Journal and conference publications remained high, although staffing was slightly reduced, with an ominous phrase appearing in the latest report: "Significant cutback in infrastructure support is threatening objectives, and our continued performance". The Centre's separate existence seems doubtful once its reserve funds disappear.

Centre F: A 'Me-Too' Centre in a New University

Director: "Frank"

Frank was Director of the fourth in the group of second stage Centres. Centre 'F' was designated a "university Centre" by its host, 'New University' (NewUni) (Marginson, 1997). On acquiring the title of 'university', the attitude of the hierarchy and staff of NewUni to research had changed. University Centres were allocated special monetary support, with the aim of achieving total financial independence after five years. The overall mission of Centre F, stated in its first annual report, was "to promote the

well-being of the whole community, long term”, in the areas of the Centre’s research interest. At my first visit, the Centre was nearly four years old, but its development had been hampered by lack of a permanent Director for more than two years. Frank had held his position for only eighteen months, and he and the Centre’s Administrator, “Janet”, were the only staff. Frank had worked at NewUni for about 20 years, since he returned from completing overseas qualifications after prior experience in another sector of education. Other members of Centre F comprised more than 20 academics from three disciplinary units in two separate Departments, who worked principally within their own disciplines, only occasionally collaborating. In 1994, NewUni’s research report listed eight separate research interest areas for Centre F. All members of the Centre were tenured or tenure-track, with the Dean and the Heads of the two Departments included, more it would appear as a matter of courtesy than because of actual research activity. As one member said: “We are almost three sub-university research Centres within one umbrella”.

Structural Issues

Initially, the hierarchy hoped to appoint a Director for Centre F with an internationally high profile: “the Vice-Chancellor wasn’t prepared to appoint an internal person to the position” said Frank. Janet summarised the history of the Centre for me:

A small handful of people came up with the Centre idea, mostly the Dean of Faculty, the eventual Acting Director and the DVC (Research). They spent a fortune trying to find an international high flyer to fill that position - at least two overseas people were brought here for interview ... and they didn’t get any takers because they simply weren’t offering enough money to get the people to stay. But the bizarre thing about it is ... the position has no formal authority or power, which could quite easily be the reason people were not interested.

In those early days there was a sense of “the Centre is really on hold at the moment”. During that time, the Acting Director carried a full teaching load and a heavy supervision workload, because of the rapid expansion of his Department into offering postgraduate degrees. Janet, a proactive and competent administrator from outside academia, had been appointed prior to Frank and had the unenviable job of attempting to organise the Centre with very little oversight: “Centre F was me ... there wasn’t anything else. It was a

nightmare. The Acting Director just couldn't devote the time to develop the Centre. I hardly ever saw him. (Laugh) And I tried not to bother him all that often because I knew he was only in an acting capacity". Those difficulties were confirmed by the academic staff. For example: "You knew you could go to [Acting Director] but you always felt guilty going to him, because he had so much work to do, and he did everything. If you had a Centre-related problem he always sorted it out, but ... he didn't have time to wander around the corridors and talk to people" (Senior Lecturer). There was a suggestion that this workload may have contributed to the Acting Director's weaker research record, and hence to his eventual non-appointment as Director.

The issue of structure, said Janet, was "very muddy, and people have problems with it". The several other university research Centres all employed their own staff, with their Directors reporting to the DVC (Research). Each of the three research interest areas in Centre F had a Facilitator acting as a conduit between the Centre's administration and other members, while a Faculty Research Facilitator represented the whole Faculty within the wider university: "all collegial influence based on cooperation". The most important incident in the Centre's progress occurred during the establishment of its formal link with the Department, a situation where "the Centre did not win, because everybody on the committee was employed by the Department" (Area Facilitator). The link was formalised on the grounds that the Centre would not enrol postgraduate research students, and the staff belonging to the Centre would give Departmental work priority over research.

The committee responsible for this decision included the Dean, the Heads of Department, the Area Facilitators and the Faculty Research Facilitator "who was tied up with the role of telling them why it should be the way it should be", according to my informant. As the Centre's members were all Departmental staff, and hence paid to teach, the vital issue was that "taking those productive staff and discipline areas out of the Department housing the majority of Centre F members would have devastated that Department". Given the staff numbers involved, such a move would have effectively resulted in two competing Departments, all the hard discipline scientists being in one (Centre F) and the social scientists and humanities academics in another (the original Department). The Faculty Research Facilitator (a humanities academic) had pointed out

that international experience showed an arrangement of this kind meant the hard scientists would “win”, because in general, they could access greater resources than their social science colleagues.

A further issue of political and financial concern was that if postgraduate students enrolled directly with the Centre, as with other university Centres, the government funding they generated would be diverted from the Department to which the majority of the Centre’s members belonged: “The Department stood to lose a huge amount of money, about eighty per cent of three-quarters of a million dollars”. The Departments also “gained a lot of prestige from postgraduate students, particularly when they graduate”, and to maintain the Heads’ support for the Centre, without allowing their Departments to gain some kudos, would have required “some altruism, that probably ... not many people would possess”. An area Facilitator could not envisage the system working any other way:

The research infrastructure is owned to a large extent by the Departments involved. If we withdrew, we would either have to fight for the equipment and the infrastructure or go and get new [equipment], and the money just has not been there, and so ... being part of the Centre but still maintaining ... membership of Departments has been positively beneficial. Given that two Departments were involved, I think the decision was a good one.

Another Centre member with overseas experience considered that NewUni “wanted to become a research university so badly it decided to set up these research Centres and never really thought about it very much”. He also considered it likely that “the people at the top aren’t very good researchers themselves”, which provides an explanation for the Centre’s unusual structure. The area Facilitator explained that: “everything that is happening now, I think would have happened anyway, irrespective of the Centre. [...] We do get access to other funding opportunities internally [...], which we probably wouldn’t have access to, otherwise”.

Despite the loosely coupled nature of the Centre, Janet said there was “a strongly held, not belief, but determination to see Centre F succeed, commonly held and fairly frequently expressed by members”. Despite this, the same person who expressed doubts about the expertise of the NewUni hierarchy, dissented: “The Centre is to me, a paper organisation. I think it was ill-conceived. Whether it exists or not, does not make one bit

of difference to the life of anyone in my area. It will never become self-sufficient. We do not have big names here to bring in big bucks. I think it is primarily a bureaucracy for monitoring what we do". Without interviewing all staff, it was impossible to know how widely held these attitudes were, but two other interviewees also expressed doubts about the likelihood of the Centre's viability. Janet also told me how she needed to keep in touch with all members regularly, otherwise some forgot their membership. The strong determination to succeed appeared to come from people in positions of responsibility rather than all members. "Presenting well" to an outsider (myself) was also a possibility.

Faculty Perspectives

The Dean's view Frank reported to the Dean of Faculty and to the Deputy Vice-Chancellor (DVC) (Research) in his role as Director. To satisfy these people, he needed to keep both informed of his activities and any potential commitments, which he found restricting. There appeared to be minimal communication with the DVC (Research), to whom the Directors of the other university Centres reported. The Dean conveyed that the DVC (Research) was interested mostly in "global issues", that the Centre was seen as "a research adjunct" of the two Departments involved, and that Frank reported to himself weekly. The rationale for the university Centres was "more to create a profile than anything else ... to draw attention to the Faculty in a global sense, by publishing, commercialising products, generating awareness profiles for the university and for commercial funding". This reinforced the comment reported above about "wanting to be a research university". The attributes sought in their Directors, said the Dean, were: "To be good fund raisers, good money managers, good organisers, good at human relations. To have a high profile themselves."

The Director's view Frank wanted to make Centre F "the most prolific research Centre at NewUni in research output, and hopefully, also in input". While the Centre's research outputs led the university, grants were more difficult to secure. Success, said Frank, would be achieved through the continuing existence of the Centre: "For the research Centre to succeed means incoming dollars ... at this stage, because to succeed on all other criteria, but not that one, won't pay the salaries". The delay in appointing a Director meant that Frank's opportunity to achieve those aims was

compressed into two and a half years. In general, the Centre's members failed during interview to raise altruistic issues regarding the benefits from their research, possibly because of the discipline. Frank did mention this aspect indirectly, but only in relation to his own satisfaction with producing good research results and communicating them to the public: "explaining to them that this has meaning. I get a buzz out of doing that".

Financial Aspects and Implications

The mandate given Frank by NewUni hierarchy was to generate at least his own and Janet's salaries from external sources by the end of the Centre's initial five year life, but "it's a very difficult task to do what they want the Centre to do". A contributing factor was the NewUni policy that staff in receipt of internal research grants were not permitted to "buy out" of their teaching to spend this time on research, which reduced the quantity of research undertaken, and consequent publication records. This signalled the lack of cultural change from a formerly teaching focussed institution to a university, in that research grants and publications were seen to have merit, but there was little recognition of the demands associated with the *activity* of research. The one medium sized external grant Frank currently held was only a fraction of his application's budget, meaning he could not employ a research assistant and had to spend his own time collecting data: "and that's the same for all my colleagues".

The colleagues with whom I spoke also worked hard to acquire grants. Frank's external grant was from a "fairly prestigious" body, but the research reports showed most grants achieved by members to date as small (\$10,000-\$15,000) and from discipline related sources. Frank's immediate aim was to get "a big grant", because of the prestige this would bring the Centre, and the autonomy it would give him to further his research interests. He and the Dean both expressed hope that this event was imminent, because of the strenuous efforts made and the Centre members' high productivity. Frank also wished to see the Centre's services used in partnership with commercial interests to generate funds to help his colleagues' research. Some staff, however, were relatively recent doctoral graduates, having had little time to build a track record. One, who consistently worked 15 hours a day "and only eight hours at the weekends", said she had written 12

grant applications in 1996. Such long hours of work may have been uncommon, because as Janet pointed out, staff involvement in Centre F was “voluntary”; you almost have to sell the Centre to them, because you don’t have any other way of getting their support”.

Frank considered NewUni to be disadvantaged in attracting grants: “Not one person from NewUni received an ARC/NHMRC grant this year, despite our three Centre F applications all getting interviews. I think there’s a bit of politics involved, in not being one of the Big Eight [Sandstones]. It’s a game that’s played; we’ll keep trying”. His strategy of joint application with a Sandstone colleague, well established in their field, had also failed. Because their research area was more recently developed than some of the traditional areas, funding bodies sometimes considered their applications to be inappropriate, but upon resubmission to the other bodies suggested, similar treatment would occur, with the application failing to find a niche anywhere.

Although Frank told me how much the Dean supported his endeavours, he had no financial autonomy; at budget time, the Dean would say “No, get rid of this! No, you can’t do that”. Frank found this frustrating; “Every time, I need to go cap in hand to the Dean and say ‘Look, I need some money to do this’ ”. He was undertaking a route unfamiliar to the university in trying to commercialise the Centre’s services, by paying people to go and search for research funds, which needed “permission”, a disadvantage when you were “almost running a business, that’s what we’re on about”. All Frank’s colleagues to whom I spoke considered him to be making strenuous efforts to attract funding: “Frank is pounding the pavement, walking around looking for money. I think Frank is dedicated”, said one. They accepted that generating money “is his job”, with one area Facilitator commenting on the Director’s hard work under “very difficult circumstances. He knew that when he started, but I don’t think he quite realised how difficult it would be. Giving it a damn good go”.

At my second visit twenty months later, Frank was elated after a commercial sponsor had finally agreed to share in the development of products from one area of the Centre. Those negotiations had taken three years to finalise, and would hopefully provide continuing income for the Centre: “it’s a huge, huge win!”. However, it seems likely this success might still have occurred without the Centre’s existence. Prospective sponsors Frank had approached “were only interested in projects, not the Centre”, so he had

discontinued the sponsorship search. Insufficient interest was shown in the proposed short courses suggested by the Centre's Management Committee, as a possible fundraiser, for them to run. Frank was currently developing a new course for overseas students interested in applied study and enthusiastically writing an application for CRC funding. The previous year's research report showed that two of the longest-serving Centre members had finally achieved a large ARC/NHMRC type grant.

Interpreting the Role

The structural relationship of Centre F within NewUni both shaped and restricted Frank's role as Director. Because of the unusual nature of the Centre, his role consisted of facilitation and coordination, because he 'directed' a Centre almost empty of staff, with only influence and persuasion of its members available to him. "It's not a strong didactic style. Because of the way we ... I can't possibly go that way. I think I'm a very personable person and I communicate pretty thoroughly". He admitted to being powerless, never sitting at the head of the table at the meetings I attended: "I certainly don't have any power. I don't aspire to any either. Why would you want to do that? There is too much stress in life".

Frank would also have preferred to retain a solely managerial role, rather than concentrating on research, unlike the other Directors in this study (apart from Arthur, looking ahead to retirement). He accepted the need to manage by cooperation, rather than by dissent or by using a big whip, "because I don't have a big carrot to hold over them. By becoming financially viable, I can have a carrot". Networking was the key to success, in Frank's view: "in education or in business, it's all about who you know and what you know — the people".

Enacting the Role

"A facilitator" Although Frank was well published and well known outside Australia in his own field, he had little in-depth knowledge of the other academic areas in the Centre, and could only vet those members' grant applications with an outsider's eye. Initially, he planned a project to include all three interest areas. At an all-day seminar, he and the members talked about "how we might share the particular interests I thought might pull everyone together; but at the end of the day, it was clear that not everyone had those interests or shared that goal. So maybe I did fail, from that point of view".

"Giving the Centre an identity" One consequence of the lack of a permanent Director for Centre F was that members continued to relate professionally to their teaching Departments. They never assembled as members of the Centre. Since Frank's appointment, he had held an annual Christmas party at his home for Centre members, which Janet saw as making a difference. "Having the Christmas party has absolutely nothing to do with research, but it gives the Centre an identity, and those sorts of things never happened before". Another staff member who enjoyed working at NewUni after time at two other institutions, one without a research culture and the other where "my discipline was the worst thing to be in", spoke of Frank's active part in shaping the Centre's culture. Vignette 5.3 describes an incident occurring after some members were heard denigrating other members' research interests with traditionally poor funding opportunities.

Vignette 5.3

One meeting they had here this year, they decided they wanted to start a research culture; within the Department we were [apparently] lacking in research culture. And Frank — he was so good then. He pointed the finger at everyone and said:

If the research culture you want to grow grows in arrogance, grows in thinking that you're entitled to certain things where other people aren't, if the model you present the people coming into the research culture smacks of ... being condescending, then you can forget about the research culture.

Anyway, about three of them rang him that afternoon and said "Was it me? Have I been naughty?" He's sort of come of age, I think (Lecturer).

Frank preferred face to face meetings, and would walk down the corridor to congratulate colleagues on a publication, in preference to using electronic mail. His suggestion that he had the right personality for successfully telephoning strangers to arrange meetings was endorsed by colleagues: "I think Frank has the sort of personality that engages people - he has good people skills" (Lecturer). Frank's forays outside the university had, he said: "located a lot of contacts, while the research boffins are down in the lab", and although at my first visit more than a year of this type of activity had yet to

result in external funding, he felt this to be imminent: "Just like in the real world of business, they don't make half a million dollars overnight".

"I don't make deals with people" Frank operated in a very egalitarian way. When selecting a particular research area to recommend for in-house equipment funds, he explained his reasons for the choice and told the other units they would be in line next time around: "Next time we'll manouvre it to the others". Janet sensed a feeling that "we must give them all an equal amount or we will upset the applecart", although she saw the different areas having different needs and considered it should be possible to take those differences into account and still be fair. She thought greater teamwork could mean equipment was shared instead of duplicated. Partly because of the lack of discretionary funds, Frank did not believe in rewarding individual good work with "sweetheart deals" such as provision of conference funding. "I don't make deals with people 'cause I think you get into trouble that way. If we have any funding, everyone knows where it's going".

When conflict arose, he believed in having things out in the open: "negotiation is the way to go". He tried to make situations "win/win" for everyone, and when that was impossible, to make the objectives palatable to both parties. His friendly attitude also extended to the university administration staff, suffering from recent downsizing: "They get browbeaten by the academics, who think we are better than they are, which we're not".

"No management experience whatever" Centre F was hampered not just by the inclusion of three different disciplinary areas, but by being situated at two NewUni campuses. This meant substantial travel for members attending the frequent meetings: "I am meetinged to death!" said one. Parking difficulties existed at both campuses, and the problem of shortage of time was exacerbated by "chronic meeting unpunctuality by members" (Lecturer), which I experienced firsthand at the three meetings I attended.

Frank was aware of his dearth of managerial skills:

That's an ironic thing about academia. Most of us, to get promotion, become managers with no management experience whatever. I'm sure you'll find this in your research: [people saying] "Frank's a great researcher but he doesn't know what he's doing running a meeting. He sits in his office and has a great time." I've often looked at my colleagues, many of them really good researchers; they get to the top, they don't do any more research.

Frank had begun studying for a management degree some years earlier, but discontinued this because he saw it as irrelevant to his position at that time. While he affirmed that a management course or degree would be a good preparation for academic managers, he had yet to return to study, because he saw his networking abilities as the major factor in success. The somewhat uncertain future of the Centre, and the extreme pressure on him to prove its viability, were also relevant factors.

Since becoming Director, Frank had undertaken a variety of activities designed to raise both supplementary funding and the profile of the Centre. These included producing a glossy annual report covering the first eighteen months of the Centre's operation, distributed widely in the hope that "it might lead to industry contacts", which it failed to do. This was not repeated. Attempts were also made to interest outsiders in paid use of Departmental facilities, but the times these were available proved unattractive to the public. Two of the Centre meetings I attended were to develop short courses to generate funding, with advice from an experienced non-member academic. Prior to the second of these meetings, Janet discovered that another institution recently advertising similar short courses had cancelled these because of insufficient enrolments. Despite this, the short courses were to go ahead (although I later found they did not run, through lack of demand). There seemed a general lack of awareness of the usefulness of market research before undertaking ventures of this kind, and although the short course development was intended to be shared across all areas, one Facilitator conveyed there would be simply no time available for his members to give practical assistance. The dissenting academic also complained about being asked to work unpaid overtime on such activities for no personal gain, but rather to provide other people's salaries.

The Clash of Cultures

Although the NewUni hierarchy coveted other universities' high profile Centres as productive revenue generating units, Centre F was not an example of selectivity and concentration, the express purpose of a research Centre. A more customary research Centre might have been more successful if developed from a group of researchers with a common aim, by restricting membership to the area strongest in research, but this did not fit the egalitarian culture of the formerly teaching oriented institution. Requiring Centre F members to undertake heavy teaching loads as a priority was incompatible with

simultaneous expectations for quickly built track records to win national competitive research grants. Forbidding the members to buy out of teaching time, even when research funding was obtained, sent mixed messages to the academic staff. This applied also to Frank, where he was on the one hand under immense pressure to make Centre F a viable entity, but simultaneously encouraged by the Dean to take on more postgraduate students to attract money to the Centre, and “to be on all the research committees around the place”.

The ‘Me-Too’ Centre

While the wish to include all staff likely to contribute to the Centre’s productivity was understandable, the inclusion of so many different interest areas within one Centre meant it was difficult to determine a unifying focus, and the altruistic outcomes factor was not as prominent as in some other Centres. The emphasis seemed to be on proving that NewUni could match the older established universities, by using Centres to attract funding and prestige. This aim ignored the fact that the Sandstones possessed facilities and reputations that reflected, in a positive way, back on to their Centres, helping them to become established and to grow. As NewUni currently lacked this intangible reputational resource, it could not be passed on to its Centres. While there was a positive attitude to maintaining Centre F in existence, and in essence forcing it to “win” through internally provided funding, in the dissenting view: “Frank is in a no-win situation. The Centre will fail.”

Contextual Influences

NewUni sent mixed messages to members of the Centre regarding the importance of teaching, while simultaneously stressing the importance of gaining funding for research, but without recognition of the time required for that research. The current research being undertaken was funded principally by small or in-house grants. Without much status in the real world outside NewUni, as distinct from among his disciplinary peers, and without the backing of an established institution, the Director failed to attract sponsorship and hence gain independence to meet the hierarchy’s somewhat unrealistic expectations.

Key characteristic: Facilitating

Director Frank realised that he could be only a facilitator, given the structure of his Centre; its members were not answerable to him and he was currently unable to offer them any worthwhile incentive for collaboration. Their locus of control was their Head of Department. He attempted to acquire research grants to maintain the Centre as an entity, and encouraged members to do likewise, carefully reviewing their applications and trying to improve quality, as a coach. He acknowledged and congratulated them for the publications they achieved and held Christmas parties strengthening the Centre's identity. He officially chaired the meetings I attended, which occupied people's time but achieved comparatively little, without clear objectives or circulation of preliminary information. Others present at the meetings often played a larger part than did the Director, who attempted to work towards a consensus. His strongest wish was to achieve the elusive funding that would empower him to implement his own research ideas through his own team. Until that time, his hands were tied.

Situation: Struggling to take off

Centre F was the invention of administrators at NewUni, a top-down umbrella structure rather than a natural clustering of academics with strong objectives focussed outside the institution. NewUni university Centres existed for the purpose of building the profile and reputation of the institution. The Director currently had no power or financial autonomy and was required to achieve the somewhat unrealistic objective of financial independence within a short time frame. Although engaging in strenuous efforts to attract funds, his lack of management skills (which he recognised) and marketing skills (unrecognised) meant his efforts were less efficient and effective than they might have been. Frank was unable to direct because the structure disempowered him, and he could not act as disciplinary research leader for many of the Centre's members due to the diversity of their work. The title "Director" was in this case inappropriate, because his direction extended only to his administrator. While he worked hard to promote the Centre and had made many outside contacts, the lack of an established institutional research reputation meant that potential sponsors would gain little by providing sponsorship. The lack of any track record of prestigious grants achievement among the Centre's researchers, who worked mostly in areas outside established disciplines, meant

such grants were tantalisingly outside their grasp. There appeared a lack of understanding on the part of all concerned that reputation and trust take time to build, and that Centres are usually more successful when built on prior achievement and networks, or by identifying a niche market with demands to satisfy, rather than by initiating a Centre and subsequently attempting to locate that market. The selectivity and concentration that defines a research Centre was absent from Centre F.

Epilogue

Nearing the five year deadline for the university Centres' independence, Frank had instigated discussions with the Vice-Chancellor and the other Directors of university Centres, to suggest that NewUni reorganise the funding arrangements for those Centres. Some of the university Centres had been able only to attract commercial contracts, rather than funding for actual research. None were fully independent. Because the Vice-Chancellor "saw it as important that the research Centres continue, and the original philosophy of self-funding wasn't going to work - there's just no way we can generate that sort of money" (Frank), the hierarchy developed a new funding model tied to research outputs, providing support through separate funds from the university, the Faculty and the original Department: "Otherwise, all the university Centres would have collapsed". I asked Frank whether my questions had had any effect on the way he worked, and he said: "No, I try not to think about it".

Summary of the Findings of the Second Stage Cases

Chapter Four showed how the Directors of Centres A and B interacted with their Communities of Interest in the different contextual layers surrounding their Centres. Chapter Five has explicated the way the Directors of Centres C, D, E and F each worked within their Centre's own unique context. Individual differences meant these Directors interpreted and enacted their role in different ways. Collaboration had proved successful in the past for Director C, so she continued working in that way. Director D needed to grow her own staff to individual competence and professional acceptance, so she worked by enabling them to acquire this competence. Ernest saw his Centre as under siege within Utech, although protected by the affirmation of national funding bodies, internationally recognised work and a supportive Advisory Committee, all associated with external

Communities of Interest. When the ongoing grant ceased, he needed more than ever to defend his group, because a secure inflow of funding had been his most powerful weapon in the battle for survival. Frank had little choice over his current style. NewUni had structured his situation by restricting him to being a facilitator until he could demonstrate his worth as Director by attracting external funds, to generate prestige for the institution and power to conduct his own research programme.

Table Six provides a brief summary of the findings from the second stage cases in regard to the major issues I wished to examine further for those Directors. Each of these four Centres was in a different situation regarding access to finance, and each was in a different structural situation in its university. The quality of collegial support provided for a Director by his or her host university hierarchy emerged as equally if not more important than the structural relationship itself. This table sums up:

- the different structures of these Centres
- the type of support available to their Directors
- the funding position
- the Director's approach to the role in the structural context, and
- the result of the Director's efforts, subject to contextual influence, as the situation existed in each Centre at the time of my visit to collect data.

Table Six: Summary of Issues from Second Stage Cases

Revised major issue	Director			
	C	D	E	F
Structure	<i>Departmental</i> One of many Centres. Limited financial delegations.	<i>Faculty</i> (becoming <i>School</i>) Research experts in teaching oriented Faculty. Few other Centres	<i>Departmental</i> Split reporting Dean/HOD. Other Centres are in different disciplines.	<i>University</i> Reports to DVC (Research) and Dean. Members in 3 interest areas in 2 Departments in 2 Faculties.
Support	<i>Supportive</i> relationship with Head of Department in otherwise declining Faculty.	<i>Supportive</i> , somewhat distant relationship with Dean (budgets and strategic planning advice).	<i>Supportive</i> Dean seeking greater industry/commerce involvement. Head of Department rather <i>antagonistic</i> , re funding.	<i>Supportive</i> Dean but very limited financial freedom.
Director's approach to role	<i>Collaborating</i> Builds on team approach. Task oriented but also person-oriented. More advocate than entrepreneur. Good networks.	<i>Enabling</i> Research leadership through example and sharing of expertise, with good outside liaison. Learning to accept managerial responsibilities. Staff loyalty high.	<i>Defending</i> Rejects managerial role. Stands up for staff in university. Liaises well at inter/national level more than local level.	<i>Facilitating</i> Compulsory style based on Centre's structure. No direct authority. Colleagues, not staff.
Funding position	<i>Good mix</i> . Major industry grant provided some stability. Sometimes now directly approached to bid. Director initiates projects.	<i>Base grant</i> . No contracts. Persistence needed to acquire other grants. Nominal 50% success rate, but more in actuality.	<i>Base grant ending</i> . Small consultancies. <i>Funding difficulties</i> in changing political and economic situation mean uncertain outlook for Centre.	University provision set to end next year (salary only). Arduous attempts to secure outside funding <i>unsuccessful</i> to date.
Situation	<i>Equilibrium</i>	<i>Growth</i>	<i>Decline</i>	<i>Struggle to take off</i> .

Conclusion: Second Stage Findings

From the detailed analysis of the second stage fieldwork for Directors of Centres C, D, E and F, in this Chapter, it became clear that access to research *funding*, Centre *structure* and *complexity of role* were indeed major issues affecting this second group of research Centre Directors. In addition, the nature and extent of *collegial support* available to a Director emerged as a further major issue. These findings, revised from those in Chapter Four covering only the first stage cases, are summarised below.

1. **Directorship is complex and multi-faceted.** The umbrella term ‘Director’ covers a variety of aspects, influenced by the expectations of those in the particular Community of Interest with whom the Director interacts.
2. **The structural relationship of a Centre to its host university influences the expectations held of a Director.** The way in which a Centre is connected with its host institution affects the demands on the Director as a member of the university community, impacting on the time and opportunity the Director can spend developing the role, and often making the Directorship more complex.
3. **The quality of collegial support by the host university hierarchy impacts on a Director.** The quality of the personal relationships between the Director and his or her immediate superiors was found to affect the Director’s morale and persistence in his or her role.
4. **The sources and consistency of a Centre’s funding influence the Director’s work.** The activities of each Director and his or her staff were influenced by the number and attributes of the sources from which funding was obtained, and the consistency, if any, of the funding from specific sources.

Chapter Six elaborates on these issues in more detail, and on others affecting all Directors, in a cross-case analysis covering all the cases in this study.

CHAPTER SIX

CROSS CASE ANALYSIS

Outline of the chapter

Chapter Six presents the cross case analysis of all cases in both stages of this study of the role of Australian university research Centre Directors. Chapters Four and Five, respectively, covered the findings from the three intrinsic cases of stage one and the four more instrumentally focussed collective cases of stage two. Re-examination in stage two of the three major issues from stage one – *funding, structure and role complexity* – confirmed their importance, as well as enabling me to uncover a further important issue, *the importance of collegial support* for Directors. While the case reports in Chapters Four and Five aimed at a holistic approach, situating each Director in the unique context of his or her Centre, these were largely descriptive findings. In this chapter I discuss each of the four issues, comparing differences across cases to develop understanding firstly, of how funding, structure and collegial support influenced Directors in the interpretation and enactment of their role. These are the contextual factors of Directorship. Following this, I analyse important aspects of Directorship as exercised within the Centres, showing how some Directors achieved greater success.

Contextual factors

Funding

In the Centres in this study, access to research funding was the *precursor* of most research activity. By providing access to time, equipment and other resources, it enabled research to commence, this being the primary function of a research Centre. Directors needed to cross this funding hurdle successfully so that the eventual research outputs and outcomes might occur. Because of its temporal importance in the *process* of conducting research, funding is discussed prior to the other issues.

Access to funding

In the older Centres in stage one, funding was more often earned by others apart from the Director, while in the younger Centres in stage two, attracting funding was

acknowledged as the Director's prime responsibility. Dorothy often submitted joint funding applications with her colleagues, adding her reputation and track record to the team to enhance the chances of success. Her Centre was in growth mode, partly through persistence with reworked applications after initial refusal, and in searching out supplementary funding. Her Centre also provided a new view of events not obtainable elsewhere. She had the advantage of an innovator. Tactics such as joint applications worked less well for some other Directors.

Ernest was experiencing difficulty with funding for the first time in Centre E's existence, perhaps because of an outside view that other areas of science were more important, and the apparent lack of concentration in his somewhat diverse publication record. For Frank, Director F, even collaboration with a Sandstone colleague had not ensured success. The success rate for Sandstone academics in the prestigious grants is often no more than the 'one in four or five' average rate, as Ernest noted. Despite Frank having built an individual publication record funded by small in-house and industry grants, it was clear that, to be regarded a success as Director, he needed the endorsement of external peers through success in the more prestigious grants arena.

The source of research funding has become a status symbol in Australia. During my year working in Australia and on subsequent visits for this project, I found a frequent inquiry to be: "And who's funding the research?". Work funded by a prestigious grant was naturally the most notable, and self-funded work, the least.

The symbolism of funding

Being awarded grants or contracts was hugely symbolic for the Directors and their research colleagues. As Ernest's Laboratory Manager said: "Funding is ... the main obstacle to our research. All the other things, we can overcome, but ultimately we can't overcome any of them unless we have the funds to do so". Often, a grant or contract meant no increased financial advantage for the researchers: "We appeared to be very well-off, because we could afford to employ more staff, but people didn't understand we just got paid ordinary salaries" (Barry, D-Three, Centre B). Unlike Departmental academics, research Centre staff were usually unable to undertake private consultancy

work, as this conflicted with the interests of the Centre and made contract deadlines still more difficult to meet.

As a 'necessary but not sufficient' factor for a university research Centre, the award of a grant or contract was usually an occasion for celebration and rejoicing: "A huge, huge win!" (Frank, Director F). Such awards were liberating, because the research could then begin, publications were likely to ensue, and there was increased probability of sought-after outcomes being achieved. Consistency of funding represented greater security of employment for contract staff, a better chance of the Centre surviving the regular review process, and enhanced status for the Director or others who had applied for or negotiated the funding. Contract researchers were able to continue participating in a group of often congenial people with shared interests. For staff with deep conviction of the worth of their research, it meant they could continue "... not working for me, but working here because they love it!" (Barry, D-Three, Centre B).

Winning an external grant or contract was thus a visible affirmation of support for those in the Centre, a source of reinforcement, and a means of increasing researchers' confidence. It also meant the university's expectations for the Director and Centre were being met. Funding thus had a symbolism reaching far beyond the actual amount of money received.

Diversity of funding sources

The major types of funding for academic research in Australia, apart from the Research Centres' Program, were described in Chapter Four. Christine's Dean saw the different activities of Directors varying between Centres, being "dependent on the extent to which the Centre might be getting reasonably secure income". The market for research funding may be seen as a continuum, displaying the relationship between different types of funding and the extent of control researchers have over the work. At one end of this continuum, those academics securing ARC/NHMRC type grants have a fair degree of control over their work, within the priorities of those granting bodies (see Research Funding in the Australian Unified National System, Chapter Four). At the other end of the continuum is contract research, which may be profitable commercial consultancy, where the funder seeks specific services rather than generation of new knowledge, "and

you're working to someone else's agenda" (Christine), with the funder exercising "a great deal more control" (RF, Centre A). In addition, contracts may be secured in the area between these extremes by tendering, upon invitation or in response to advertisements, a process with uncertain outcomes.

Benefits and limitations at the ends of the continuum. For a Centre Director, sources of funding from each end of the continuum are of limited value. The highly competitive ARC/ NHMRC granting system carries one chance in four or five of success, because of the number of applicants. The attitude of those responsible for the system has been reported as: "There is ... a number of persons who are highly productive. [...] one is drawn inevitably to the conclusion that the success or otherwise of the research system depends on the extent to which that system nurtures its high-fliers" (Brennan, 1991, p.28). The assumption (at time of visiting) that a host institution provides the Principal Investigator's salary means such grants are problematic for researchers funded on a project basis, and also "they almost always cut your budget" (Ernest). Despite this, the distinction associated with success against such intense competition means these grants are highly sought after, although Christine's view was: "While they may be worth the prestige, I couldn't run a Centre on those grants".

Commercial contracts, on the other hand, can bring a Centre much needed finance for items such as conference travel, new hardware or software purchases, supplementing budget overruns or funding shortfalls, or providing short term continuity for staff between contracts. The dangers of this work are that the research will veer too far from the Centre's desired research programme, that academic objectivity may be lost in meeting the funder's needs, and that inability to publish the work because of commercial sensitivity will affect the Centre's publication output. Although Directors aim to attract research funds from external, sometimes non-traditional sources, they and their Centre colleagues need constantly to prove their adherence to traditional academic standards by appropriate publication of results. As I was told several times, Centres undertaking too great a proportion of commercial work had been closed down because they failed to fulfill their university's expectations.

Contract funding is also available to many Centres from government Departments, which have a compulsory tendering process. Negotiating the right to publish is an important element of the contract for Directors with such funding, otherwise there may be difficulties when the funder claims ‘ownership’ of the findings, delaying publication for reasons such as political expediency or transfer of the official responsible. This happened to Arthur when one of Centre A’s reports was “lost” in a particular government office for six months, and to Christine, who waited several years for release of project results, because those results did not match the particular Minister’s agenda.

Potential of the betwixt area The middle ground of the continuum, which I call the ‘betwixt’ area, includes grants from state foundations, professional associations, sponsors, and other bodies with whom some negotiation of the work may be possible. This area of funding lies between the ARC/NHMRC grants and commercial contracts at either end of the continuum. While grants often do not include a profit margin, this betwixt area appeared to offer the greatest scope for Directors to increase their funding success rates, hence growing their ‘markets’ and their research programmes.

Arthur and Christine had both done this very well. Arthur “sold” the research results to practitioners and generated further research from satisfied clients, through liaising with them to answer their queries or discuss implications of the results, and his colleagues grew the market through approaching parties with an identifiable vested interest in a research topic for specific project funds. Christine sat on a number of advisory committees connected with funding bodies outside Sandstone, especially as her Centre’s reputation grew, and “her particular strength was to be well networked” inside and outside Sandstone. This meant she could sometimes influence the initiation of projects for which her Centre then submitted tenders. Christine saw the ideal funding strategy, even for those Directors with an on-going base grant, as aiming to attract funds regularly from diverse sources. She made the point that not becoming known to alternative funders could be dangerous for Directors when a base grant concluded.

If this betwixt area is sparsely populated by potential funders of a Centre’s research, a Director may experience considerable difficulty in access to funding, as in Ernest’s case. He or his colleagues had in the past acquired ARC/NHMRC type grants

and other prestigious government support (one such grant was currently held), and consultancy income noted in Centre E's latest annual report had increased, but funding from the betwixt area was sparse, partly because of changes in government science priorities. Without a market analysis, it is not possible to say whether undeveloped opportunities existed for Centre E.

Becoming a preferred supplier

Christine, nearly three years after my visit, was finding that: "Often, we get contract funding which comes straight to us, without [the need for] tender. This is because of our reputation and the need for (especially) state government to get the job done by people whom they can trust". Her Centre's reputation for producing high quality work, on time, meant she had effectively become a 'preferred supplier' for some organisations. However, despite such approaches and the acquisition of "more grants than we've ever had", because of the lack of surplus from these grants, Christine had been "really ... struggling" to maintain her Centre over the previous two years, when "the Faculty" at Sandstone, under financial duress, withdrew its contribution to salaries for she and her support staff. Her success meant she was judged able to survive unaided, despite the demands of carrying both a normal teaching load and the Director's responsibilities, and she resented such a "harsh response by the Faculty", after putting in so much effort to build "a good two-way relationship" with the hierarchy.

Of the other Directors, Arthur and his team, in the least academic and arguably one of the most successful of these Centres, did not apply for ARC/NHMRC grants. They had however, grown both the non-profit grant and the commercial areas considerably. Barry had moderate success with ARC type grants and negotiated with commercial funders in an apparently satisfactory way, but had problems with the betwixt area, because of his disciplinary approach and insistence on retaining academic independence. Some of his work had resulted in policy changes making him unpopular with potential funders in his state. D-Five in Centre B had made strenuous efforts to capture market share, with limited success in an unenviably difficult situation where his Centre's past funders were now working with Barry in his new institution. Bernard, a leader in his discipline by "effort and example", was hunting for more projects than he

could handle if he did indeed attract them all, despite currently working at “a hundred and fifty per cent level”.

Dorothy and her colleagues had a strategy of “if we want to do it, we want to do it, and would persist to the point when we were funded” which, in the grants area in which they operated, was feasible if frustrating, and needed “patience, persistence”. Centre D researchers did not undertake short term contracts because of the associated insecurity and the lack of suitable contract work. This meant the Centre depended heavily on small amounts of money from occasional guest lectures or similar sources. When Wannabee began passing on the EFTSU funding for Centre D post-graduate students to Dorothy, this was much appreciated; at Sandstone, this had not occurred. Frank, Director F, had one grant in the betwixt area and was “pounding the pavement” looking for funds, but it was unclear how much funding existed for him in a comparatively new discipline area, without a track record of prior grants. The industry-supported grant his colleagues eventually attracted for their work depended as much on commercial development as on research.

Amid the unpredictability of competitive grant rounds and tender bids, those Directors able to attract funding from a range of different sources had grown or sustained their Centres. This appeared to result from active “involvement” in external Communities. To do this, of course, a pool of existing and potential betwixt funders must exist. While three Directors in this study had enjoyed the temporary security of a limited-term base grant, two of those grants were about to cease.

The host institution's part in funding

The research Director's host institution contributes to the Centre's funding by providing the Director's salary and sometimes those of other tenured academics or general staff working full time or part time in the Centre. The only untenured Director in this study was Dorothy, prior to her return to Centre D on improved conditions. Before this, she effectively substituted her Funding Body's base grant for the more usual contribution of a host institution. Endorsement of a Centre by its host university means the Director becomes a conduit for a flow of funds from their institution to the Centre. This is because universities usually regard contract researchers as staff members, even

when not providing the money for their salaries. Consequently, those people have access to office space, library resources, internet connections, training courses, and other benefits institutions account for as ‘overheads’. Dorothy was at a severe disadvantage in having to find and pay rent for her Centre’s office space, due to her initial Dean’s failure to support her by providing this. On this usual foundation of host university financial support, a Director is expected to grow his or her Centre using external funds gained through individual initiative. The university invests in the Director on the expectation that he or she will generate funding, good results and prestige for their host institution.

Structure

Structure I define as the arrangement by which a research Centre and its Director are linked to the host institution. This link affects the level and frequency of the Director’s reporting relationships with the hierarchy and peers, depending on a Centre’s location within a Department, School, Faculty, or other arrangement, in line with university policy. These reporting relationships often affect the flow of EFTSU money to a Centre for post-graduate students supervised, a sometimes crucial contribution to a Centre’s funding. The salient point regarding structure emerged as the extent to which the university hierarchy expected the Director’s active participation in university affairs.

The balancing act

The extent of a Director’s active participation in university affairs played a large part in helping or hindering a Centre’s successful operation. In stage one of this study I encountered two extreme structural situations in which a Director might be placed. Arthur, in Centre A, was totally outside the Faculty structure in his Sandstone and hence free to concentrate his energies on research and associated work, much to the Centre’s advantage. Barry and Bernard, as for all Directors of Centre B in another Sandstone, were treated as Heads of Department, with numerous associated duties: “there are all these pressures from the university to take on other responsibilities” (Bernard). Centre B suffered because of those demands on its Directors.

Frank, at NewUni, was “on all the research committees in the place, and the Evaluation Board”. As part of a Faculty at Wannabee, Dorothy was required to attend a number of Faculty committees. Her former acting Director suggested there was: “a

downside to us all being involved in all sorts of things. It is not clear what boundaries we should put on some of these commitments, versus work commitments; if you don't participate you are not part of the Faculty, if you do, you don't achieve personal goals. I see it as a balancing act". Ernest, Director E, had chosen the difficult situation of dual reporting; to a Head of Department for his teaching responsibilities, and to the Dean for Centre E. He spent two days a week teaching and one with his research students, a fourth day being reserved for administration such as writing up regular reports to satisfy Utech's demands: "but overriding all this are committee meetings". He told of the: "distractions, in the way of dealing with a very active administrative life. There are a lot of analyses, a lot of self-criticism happening within Utech. We have to report repeatedly to various people. So basically, we are being taken away from our core activity too often". Such demands detracted from the Directors' time for engaging in research advice, writing and resourcing. Often, the hierarchy seemed to give to a Director with one hand and take with the other. Traditional collegial decision making in academia did not sit comfortably with the need for research Directors to *concentrate* their activity on their Centre's objectives.

The symbiotic university-Centre relationship

A Centre is regarded as a separate entity within its institution, although difficulties occur when all its members are Departmental staff, as in Centre F. The Director is the nucleus of the Centre, and is identified very strongly with it, few of my interviewees being able to envisage a successful Director in an unsuccessful Centre, or vice versa. This is an effect of the extent of control a Director has, especially over contract staff: "A Head of Department's not going to tell you what to do as much as here" (SRF, Centre B).

Purpose of a Centre A Centre is a strategic device used by its host university to draw attention to its research strengths, in the hope that external funding bodies will support the research accepted as one of a university's primary functions. When presenting early findings from this study at a conference in Australia, I mentioned my initial surprise that funding received so much attention in comparison with the research itself, to which the Head of a university Research Office in the audience commented: "That's what it's all about - making money!" Bernard in Centre B explained the concept of Centres this way: "The reason we have Centres is because in Australia these days,

outside contractors like to give money to establishing a Centre and working with a Centre". The reason for this may be that Centres convey the impression of greater permanence and security than does a sole Departmental researcher, providing greater reassurance for funders in the turbulent economic and social environment. A cluster of researchers, endorsed by their institution as a 'Centre of excellence', also gives the impression of being more like a commercial unit, and more responsive than the 'ivory tower' image of the traditional university. As Christine said three years after my visit: "What is important for a research Centre is sensitivity to a range of factors and an ability to change, while at the same time providing continuity".

Despite Bernard's focus on funding, he was clear on the academic rationale underlying Centres:

If all we do is make money, more than break even, that's not enough. We should be closed down. The only rationale for this Centre is to make a major contribution to national research and [society]. If we can't do that, we shouldn't exist.

Christine and her Head of Department both noted the strategic import of a Centre, the Head of Department considering: "The role of an academic Department is much broader than the role of a Centre. [...] A research Centre is of critical importance, certainly at Sandstone one of the most visible ways in which the mission of the university is addressed". Christine saw the flexibility of Centres as beneficial for the institution:

Centres are very good for universities, because they can be set up around ... flavour of the month type issues, they can be stopped in their tracks when the university wants them to ... they are very disposable, they are very ... lucrative ... very good for getting the most out of people. And, what is very important is that Centres have the capacity to work across those old disciplinary boundaries. The real work, the real driving force, and where changes are made and research has impact is cross-disciplinary, so Departments are not useful for that.

Centre C's Management Officer confided that he sometimes felt the Centre, being embedded in a Department, was "little more than an administrative nicety". Despite this, he saw it as: "more than ... a collection of projects. It has an existence ... it is really strongly identified with the fact that three people started the Centre and they are still basically the people [here]". Christine's Dean supported this idea of synergy: "... when they are negotiating with industry, or the public sector, they have an identity which goes beyond

them, any one person as an individual". In this study, it was Centres C and F, the two Centres least separate from their Departments, where the question of identity appeared most problematic.

Symbiosis The relationship between research Centres, around the Director as nucleus, and their host institutions, may be compared with *symbiosis* in the natural world. Symbiosis is defined in the concise Oxford Dictionary as a "permanent union between organisms, each of which depends for its existence on the other". While a university would be unlikely to depend upon a single research Centre as in nature, and Centres may be transitory, their rapid growth is an institutional reaction to government policies encouraging selectivity and concentration, and a move designed to show acquiescence with those policies (Slaughter & Leslie, 1997). Centres are often built around very successful academics, who attract high levels of attention and prestige to their institutions. Such a group of academics and their Centres may be seen as vital for sustaining the university's status in the academic, government, and industrial Communities. Endorsement of a Centre gives the Director status, and opportunity to grow his or her research area and employ others. As many Directors hold tenure, for the cost of additional overheads for a Centre, and a Director's salary supplement, the institution has an opportunity to benefit from the prestige reflected upon it by the Director's success.

Academic careers, however, do not necessarily provide Directors with the skills and experience needed for negotiating outside the university:

A lot of academics are not commercial, and I wouldn't utilize them on any commercial project. [...] On the other hand, there are some who are champions, but the majority I wouldn't allow out in the real world. I wouldn't let them deal with business and industry, they're coming from a sheltered environment. (verbatim quote in Slaughter & Leslie, 1997, p.148)

Centres dependent on ARC/NHMRC and betwixt type grants are able only to meet the research expenses, if those, with little left for travel to present results at conferences, or other contingencies. Directors are thus dependent on their host institutions (or a continuing sponsor) for a base level of funding and often, for provision of advice to supplement their own experience, in the way Dorothy's current Dean shared his strategic planning and personnel expertise, or for more general advice on contracts

and intellectual property issues. Engaging in such a partnership benefits both the Directors and the university, as long as each meets their part of the bargain. This leads to the issue of collegial support for Directors.

Collegial support for Directors

This study showed that Directorship is a demanding occupation. Alongside the more obvious need for monetary funding, *the quality of collegial support* provided by the Director's host university, his or her 'partner in enterprise', emerged as a further factor of critical importance. Directors had an implicit expectation of receiving a good measure of collegial support, in return for their strenuous and sustained efforts.

Not just about money

Commentator One, an academic who had moved universities to stay with a particular research group, saw the morale of researchers being "quite sensitive to the level of support for their activities they perceive as flowing from their host institutions. [...] It is not just, or even mainly, about money" [Emphasis added]. For example, at Utech Ernest had to continually prove himself, despite ample external academic recognition. While Utech hierarchy eventually provided equipment and good facilities for Centre E, Ernest resented the grudging attitude which accompanied these. He seemed to feel the unwillingness of members of the hierarchy to show genuine encouragement and recognition, for a job well done to international standards, was reneging on the non-monetary part of the bargain. Barry, Director B, also faced a grudging attitude at contract renewal time, despite meeting at least some of his Centre's objectives in the face of obstacles generated by his institution. In Barry's case, his poor relationships with the hierarchy were almost certainly exacerbated by his own aggressive approach in standing up for the rights of his group to a fair share of university resources. He identified his major unmet need at Sandstone as "a bit of reinforcement", having received no commendation for his efforts during his entire Directorship. Bernard saw: "the warm, enthusiastic and public support of the V-C" which Barry was currently enjoying at his current university in addition to a large sum of money for Centre support, as "a fabulous deal. I quite understand why he went".

Bernard explained how *lack of hierarchical support made the whole exercise not really worthwhile*, and how this was a factor in Barry's departure: "Who wants to run a very difficult enterprise when you're not supported by the people above you. It's just not on. Research Centres - they can be very rewarding, they can be very productive, but they're difficult and under those circumstances, it's not really worth it". Bernard was speaking from his own experience, also, of "not getting on" with a difficult V-C. This comment, by an administrator with many years of close connection with Centre B, shows that positive, consistent, collegial encouragement is a critical factor for a research Centre Director. Directors have been conditioned to success, but in the competitive funding context they are likely to experience frustration, especially when the proposed 'product' they hope to 'sell' represents their best intellectual effort. This makes failure a very personal issue, and may have been the reason for D-Five's early departure from Centre B.

Unlike Ernest and Barry (and her own experience in her earlier situation), Dorothy now enjoyed good support for Centre D at Wannabee. Dorothy's colleagues spoke appreciatively of how their current hierarchy visited them, recognised them in the Faculty budget and showed interest in their progress. "The first we heard about our recent ARC/NHMRC grant award was when the DVC (Research) phoned to congratulate us!" (SRF, Centre D). This was so great a contrast to the complete indifference of their former Sandstone Dean that it was noteworthy. Dorothy's colleague also considered: "I don't think Dorothy would have left if she had been better treated here". Christine, at my first visit, valued the support she received from her Head of Department, saying that: "If this relationship were not supportive, I think it would be terrible". Dorothy had experienced not only an unsupportive relationship of this kind with her first Dean, but found a variety of other hierarchy also unprepared to help her, by making representations to him for better treatment for Centre D. This was despite the fact that they recognised his actions as unfair and endangering to the Centre. In Ernest's case, the appreciation of his V-C and the more restrained support of his Dean at Utech were insufficient to blot out the "envy or jealousy" of his Head of Department and the grudging attitudes of those unable to reach his level of international achievement. Collegial support was most effective from sources close at hand.

Benefits of management experience and education

The Directors of the three Centres in this study which were stable or growing (Centres A, C, and D) all currently enjoyed good reporting relationships, with a common factor evident in each case: their immediate superiors all had management experience outside academia, or management knowledge from prior study. Arthur's supervisor was a university administrator, not an academic, and Arthur's prior outside experience meant he had proven managerial skills. Dorothy's current Dean also had substantial outside work experience, had been "head-hunted" to senior government positions, and gave his Centre Directors substantial autonomy through "a very loose reporting relationship", while providing practical support through strategic and personnel expertise they lacked. Christine's Head of Department was knowledgeable in management areas, as evident during his interview, and had every reason to support a successful Director in an otherwise "declining Faculty". While this finding may seem self-evident, few academics show interest in management education or training.

Christine's colleague in Centre C, a former Head of Department, commented that: "being a Head of Department isn't necessarily something that people aspire to, and often people who end up filling the role for a couple of years are reluctant, or begrudging about the amount of time or effort they will put into it, and therefore it doesn't function as well as it might otherwise". Commentator Two, now working outside academia, pointed out that "academic staff generally do not get staff supervisory experience unless they become a Department Head or Centre Director. A staff member can be a full Professor, and retire without ever having held formal staff supervisory responsibilities. In [my professional area] people in industry start getting supervisory experience after about 5-8 years". In his opinion, this lack of supervisory experience prevented academics in his field moving to industry positions with higher remuneration.

Although university hierarchy expect their research Directors to engage in negotiating, bargaining, marketing their Centres, and many other activities commonly associated with business practice outside universities, they appear to see as unnecessary the provision of training or support for them, in a form palatable to senior academics. Difficulties and resentments, often generated by resource allocations, meant that Barry

and Ernest, and initially Dorothy, felt they lacked adequate collegial support. There is no way of knowing whether the members of the hierarchy who withheld this kind of support had ever received it themselves. A recent survey of academics in the United Kingdom and Australia showed large proportions of ‘leaders’ feel undervalued, some considering this to be becoming the norm (Martin, 1999). In current higher education institutions, too few current leaders seem aware of the value of good feedback as a motivational tool and means of influence.

These issues of funding, structure and collegial support, discussed above, are contextual factors influencing the research Directors’ environment and impacting on the way in which they interpret and enact their role. In the following section, I look more closely at specific aspects of the role of the Director inside his or her Centre. The aspects I cover are; *role modelling*, *learning to direct*, *leadership-in-research* and the need for the Director to have *an external focus*.

Directorship

Although all the Directors in this study worked in different disciplines and in Centres with different structural relationships and funding histories, common factors emerged. Firstly, they were expected to be role models for their staff. Secondly, rather than having been formally educated to lead or manage, they modelled themselves principally on, or unlike, others of their acquaintance whom they considered good or poor exemplars. They learned from experience, or trial and error, what worked well in their jobs. Thirdly, they enacted a sharing approach to aspects of their work which I term ‘leadership-in-research’. Fourthly, Directorship required an external focus beyond the Centre. Some Directors interacted in a more proactive way with their external and local Communities, with this appearing to be related to the growth of their Centres.

Role modelling

In this study, Directors expected, and were expected by their colleagues in turn, to lead by “example and effort” (Bernard). Their colleagues saw research leaders requiring good technical skills in their field, impressive records of achievement, and consensual approaches to problem solving. They wanted Directors they could admire for capabilities

superior to their own, who would support and augment their own attempts and enable them to become more personally successful: “a strong, confident ally” (Lecturer, Centre F). That is, they wanted *role models* who had both the inclination and the ability to enhance their own competence. Barry and Dorothy were outstanding in this way, and were those who generated the greatest loyalty from their colleagues.

Barry, we recall, “just set a problem” when allocating work to staff, providing them with a challenge which could avert possible boredom. However he tried *hard* to set the problem in a way that defined a successful outcome, and acted as a safety net by being available to “unstick” them if they ran into difficulties. Together, they solved the problem, and the researcher was better equipped to meet future challenges. Barry also appreciated individual differences: “They’ve got different abilities. Some of them don’t even discuss the problem with anyone. If the person can’t solve the problem, I’ll help him. If I can’t do it, I’ll throw it over to my team, but I won’t say that someone else ... failed. I give bits of advice and guidance”.

Barry was a very “difficult” Director of Centre B, who saw his job as “not to be a friend of the Dean” unless adequate resources were forthcoming. He acted this way despite his strong dislike of conflict, because he saw it as the only way to improve his team’s conditions. Since moving to his current university, Barry and his staff drew socially and professionally closer together, with an extremely open unit culture, there being “no confidential matters here”. He also played down his seniority and experience, so that “people feel they’re not working for me, they’re working here because they love it!”. “Loving it” implies they are motivated to remain in a context where their needs are satisfied through the combination of challenge, guidance and companionship.

Dorothy, in Centre D, needed to mentor her staff because many of them were upskilling in the Centre’s area of work. For colleagues, the process had always been one of taking on as much as one felt capable of doing, with her support. We recall from Chapter Five, her strategy “to provide support whenever requested and to offer it even if not asked for”, with the aim of becoming “obsolete”. She was also able to “let go of where a research idea might have gone” (RF) despite her own greater experience, because this was part of the process of enabling staff to achieve competence. To be able to do

this, she needed to trust her colleagues' ability to succeed, and to recognise the importance of them doing so in their own way. Although this was not entirely similar to Ernest's ideas on academic freedom, with his students "growing [their project] themselves", the outcomes were not unlike. Building a group of collaborative colleagues with strong individual ability was a way of ensuring not only that Centre D had the human resources to survive, but that the individual researchers had skills to survive elsewhere. Three or four of Dorothy's long-term colleagues have now taken up more secure positions elsewhere to follow their developing interests.

Dorothy's quiet persistence with applications "until they were funded" (with almost always eventual success), and in seeking out small amounts of supplementary money to enable the research to proceed, was an excellent example for staff. One suggested they had developed special skills "from always living on the edge, so we have extra resilience and perhaps are better at selling ourselves" (SRF). Another considered Dorothy's experience and integrity earned her "a lot of respect", while a third, a student, described her attitude as one of "watchful expectancy". She always made the effort to provide encouragement when difficulties with research occurred, but kept focus by maintaining "fairness about what is being asked for". The Centre's RA explained how "her leadership style is very strong but sometimes from outside it might not be perceived as that, because she very much works with people and guides them, rather than directing them from above". Strong shared commitment to ideals drove this Centre, shown in the conviction of one researcher who was suffering financially through project budget cuts: "What we are here to do is really important and we are all committed to that, despite the uncertainty about funding".

The loyalty shown to both these Directors was remarkable, and even when some staff moved on, close relationships were usually maintained. In Barry's Centre, staff had left pet projects and suffered inconvenience to move institutions with him, often working voluntarily, from interest, until midnight. In discussing how he modelled himself on his former colleague who showed unusual generosity in dealings with staff, Barry remarked that he gauged the success of his own such efforts by the extent of the loyalty his staff showed him. In Centre D, a colleague of Dorothy's related that: "Given the external

difficulties the Centre has faced, to have as many of the staff stay on in the face of complete uncertainty, for a long period of time, I think reflects on the Director. We would go elsewhere if we thought we could find a better place to work. There would not be many other places that would retain staff in that context”.

Learning by example

In the absence of formal training, most Directors in this study took some years to appreciate the full extent of their duties. Arthur, with outside managerial experience, saw the one university-level management course he had studied many years earlier as not a good way to learn: “I think you learn through being exposed to good and bad managers”. His experiences under “two real nasty pieces of work” led him to reject acting in a similar way towards others. “You learn from those people. I [also] worked for people who have had full trust in me, and you trust that people will do their best work for you [in turn].”

Frank, Director F, had begun MBA studies in the past, but dropped out because he saw them as completely irrelevant to his situation. He commented on how “most of us [academics], to get promotion, become managers with no management experience whatever”. This implies that academics see management education and training as unimportant, and they assume those achieving such promotions will be able to cope, using existing knowledge. While Frank admitted his lack of managerial skill, his immediate superiors had also worked in academia for many years, and it seems likely he had no strong managerial role models to emulate. He did mention respect for his own Dean who stood up for his Faculty, unlike others who were apparently more timid with the V-C. At my second visit, Frank mentioned how his colleagues expected him to apply for the Head of Department vacancy, which carried more authority and presumably, greater remuneration. However he had no intention of doing so, because he saw this and the Directorship as impossible to combine. While keen to remain as a preferably non research-active Director, he had no wish for any more power.

Christine, Director C, had also learned everything she knew “on the job”, despite working initially with the Centre’s first Director. Early in her Directorship, she faced difficult personnel problems, eventually using contract non-renewal as a solution. As her Management Officer noted: “I don’t know that university people are trained well to be

managers of Centres". The Sandstone Directors were simply expected to do the job. Christine employed senior contract staff from the practitioner area to overcome the problem of lack of time for training juniors. She treated them as academics, setting objectives to be reached and leaving them to organise themselves to deadlines, but with regular reporting. An academic all her working life, this was presumably the way she also had been treated. Becoming more aware of formal aspects of her position after my visit, she enrolled for a university course in leadership, but found she had by then acquired most of the skills covered. From unpleasant review experiences and observing others in university forums, she learned to promote her Centre, keeping its achievements in the eye of those who mattered and giving the impression of being a person who stood her ground, a matter of pride in the Sandstone culture. She was aware of the need for change within the Centre's ways of working, having undertaken several changes of focus in response to environmental shifts.

Dorothy noted drily that she had more examples of how *not* to do the job than she did good ones, and saw her experience as a parent as more influential than management theory. She had also worked largely in academia and initially managed her Centre with little support from her reneging Sandstone Dean. After spending time overseas, she had reached greater understanding of the scope of her position. Whereas previously she concentrated on research excellence, her area of strength, she admitted coming to recognise a need for more focus towards external groups, for the good of the Centre. This meant passing to others some of the research projects she had intended to undertake. At Wannabee, she needed strategic and financial plans: "which won't remain the same, unlike a research plan" she said, sounding slightly surprised. Although her preference would be to delegate managerial responsibilities to others, "that's not possible. It's not something I like doing, but I've got to do it".

Ernest regarded himself as a "leader of the research program", rather than "a science administrator". While he saw it as important that the Director be the person largely responsible for implementing the Centre's plan, he seemed unaware of the need for a central vision or shared objectives to focus the work. He delegated laboratory issues fully to the Laboratory Manager, and was happy for a senior woman colleague to

undertake conflict management on most occasions. Praise was restricted to the administrative staff, and he admitted being “unsure whether I’m effusive enough” when I asked about feedback to staff, referring me to another interviewee who complained, without probing, that staff received no positive reaction from him on having done well.

Ernest admitted his view of consultancy had changed with the financial downturn. Initially he had given it low priority, but recently saw its use for keeping him in touch with real-world problems, and providing funding. His open attitude to the research programme had also tightened over the years, according to staff, with projects done in the past being no longer possible. While the “initial breadth” in outlook had been “a burden”, relatively inexperienced staff still lacked a focus unless they could develop an individual research programme, which was difficult when successful pilot projects remained without the endorsement of further funding. Ernest modelled his approach to Directorship on that of his PhD supervisor and “best colleague” overseas, who used “very much down to earth consensus”. This person aimed at attracting quality staff, discussed the work with them and hardly ever made dictatorial statements. “He would have impressed me quite a bit”, said Ernest, repulsed by the somewhat “superior stand” taken by his current Head of Department towards Ernest’s smaller Centre, saying; “I can’t stand it”.

In much the same way as Ernest, Barry was inspired by a former Director. This man’s outstanding characteristic was *generosity*, shown by insisting that “the people who did the research got full credit for it”. He simultaneously promoted the research outside the Centre, in a similar way to Arthur’s “selling the results”, but apparently aimed more at selling the person. Barry displayed generosity, in turn, by his full and frequent praise of staff, and his efforts to get younger colleagues established in the field by presenting group papers at conferences and taking their own solutions out to clients. His reputation was already made, and “keeping his research group happy and productive” was at the heart of his Directorship. Barry admitted in hindsight he had often neglected the public relations aspect of his role while at Sandstone, by presenting research results to the media as the group’s work rather than his own (without taking sufficient credit), and neglecting the

opportunity to increase his public personal profile. At Sandstone, public relations were supremely important.

Also in Centre B, Bernard, admittedly an interim Director, had learned the need for quality control. If permanent, he would review all final reports prior to their release to clients. This was because of less than ideal experience with a government contract, when the format of results was changed at the client's insistence, in hopes of preventing undue attention by the media. Bernard had also experienced the unpredictable nature of the current funding environment, and recognised the changing place of "politics" in current success. Excellence was no longer sufficient. Directorship in such difficult circumstances led him to appreciate the inherent conflict between university expectations of participation; liaison with current or potential funders; and reflection for development of new projects: "You just can't!".

Frank was seen as person oriented and trying hard to achieve NewUni's expectations of external funding, being convinced that success would come by networking. He seemed unaware of the value of researching his market, although his attempts to date at selling Centre F's services had been notably unsuccessful.

Managerial inadequacies

While staff appreciated the strengths of their Directors, in most cases they were concerned about what they saw as managerial inadequacies. These instances appeared to be sourced in communication problems. For example, younger staff in Centre A saw a need for "more modern management techniques" and would have preferred improved communication with Arthur. One Project Manager would have preferred Arthur to discuss her project reports with her, prior to his discussing them with others, and experienced Research Assistants felt unable to raise the issue of pay increases with him, although they would have liked to do so. There had been a rather high turnover of Research Assistants, and a feeling by some staff that Arthur was unconcerned about this because they were easily replaceable. He admitted his "focus on getting the work done" and neglect of "human factors" may have been responsible. Bernard recognised that his communication within Centre B was probably inadequate, being mostly on a one-to-one, as required basis, and the fact that staff regretted the departure of D-Five, their "person

oriented” Director, implied that the supportive climate he had engendered was now weakened. While Dorothy’s colleagues conveyed wholehearted recognition and appreciation of her expertise and willingness to provide technical and moral support, she herself realised she needed to take a stronger stand outside the Centre in future, for its good, and was preparing to do this. She admitted she would, now, make greater attempts to lobby influential people, such as members of the university’s Council, about the lack of support from her earlier, uncooperative Dean, rather than attempting to cope alone with this situation. In Centre E, staff were concerned about Ernest’s lack of internal feedback and communication, although it is unclear whether he chose to act this way for reasons of his own, “playing his cards close to his chest”, or simply did not realise the importance of communication in a group such as his. His students saw him as unresponsive to their needs, and his strong global vision appeared to neglect a possible local market for his research. Birthday festivities and simple lunches previously shared by the whole group, an important opportunity for communication, had been banned, or restricted to academic achievements such as journal publications.

The foregoing discussion shows how due attention to *communication*, both inside and outside the Centres, was a factor of overriding importance for Directors. The third of the four major aspects of Directorship, leadership-in-research, is considered below.

Leadership-in-research

Leadership in a research Centre context emerged as a function separate from other aspects of managing a research Centre. Bernard made this point when describing Barry’s shortcomings: “He was a good leader of a research team but not a good manager of the office staff”. Leadership is a topic which has fascinated many researchers over a long and broad history, with leadership research being extensive and primarily quantitative (Bryman et al., 1988; Rost, 1991). Many of these researchers have not distinguished clearly between leadership and management as separate concepts. To avoid maintaining this confusion, therefore, I treat leadership and management as separate concepts

In relation to research Centres and their Directors, I argue that a Director’s appointment to head a Centre endows him or her with authority. However, leadership, if regarded, as by Rost (1991, 1997), as a multi-directional group process, requires the

Director to step out of a controlling position into one of influencing, while becoming open to the influence of others. An example of how this does *not* always occur in universities was given by Ernest's post-doctoral fellow, referring to his former institution: "One particular lab has a picture of the Director there and written on it is: We work as a team, but we do it my way!". What I understand as *leadership-in-research* is, the ability of the Director to allow others to influence the research by contributing to its enhancement, as part of the research team in the widest possible sense. This is the strength of team research. Working in this way does not mean that all influences are equal. A Director's (usually) greater experience and expertise may well show in that person's more heavily weighted influence. A few examples of how this worked in practice follow.

Arthur engaged in Leadership-in-research when working with his ad hoc project teams in the early days of Centre A; anyone who was around would become a very supportive project team. Barry worked this way consistently, treating the contributions of colleagues on their merits rather than their source, and giving his young and clever associates responsibilities appropriate to their intellectual capacity rather than their age: "I very rarely pull rank". Christine worked in this way through joint writing of reports, collaborative preparation of research proposals and involvement in groups generating new work. Dorothy worked in this way by giving her colleagues options for ways to be involved in the Centre, and maintaining the openness of discussion and debate to influence decision making. While Ernest's group, in discussing research proposals, appreciated his lateral thinking and innovative way of approaching a topic, they saw a need for more vision and direction so that the work reflected shared purposes. Frank's relationships with members of Centre F could be only those of influence, but he took this influence to a higher level in proposing a changed funding basis for the Centres, avoiding their collapse and the possibility of NewUni losing face.

The motivational effect of striving towards and at least sometimes, achieving mutual purposes, can be seen most clearly in Centre A, where research results were rapidly incorporated into outcomes of visible benefit to society, balancing out the stress of continual pressure from tight budgets and tight timelines (A/Prof.). It can also be seen in

Dorothy's Centre D, where many staff were dedicated to their mutual purposes, trading off their restricted level of benefits against the chance to do something "really important" together. Barry's staff, also, were intensely involved with their developmental research, a core group having uprooted themselves from a familiar local context in order to stay involved in this process. Their joint work on their major project was all-consuming, and its conclusion was eagerly awaited.

The difference between Centres such as these, and university Departments where individuals do not always have mutual purposes, means that the Director's enactment through "setting the course and the tone of the place" (SRF, Centre B) is vital. Findings in Centre E, where staff considered this not being satisfactorily done, may be regarded as a negative case, and support the claim for the importance of shared purposes. Although Ernest set the tone of the Centre by insisting on high standards and peer-reviewed publication as the norm, Centre E staff were aware of his lack of course-setting:

People aren't clear on what our research focus should be, and that is reflected in the nature of the projects our academic staff generate. A lot of what we do is pilot projects [...] but if you can't obtain funding [to continue] that project it often comes to an end. Now, I see what the financial constraints are and what the ramifications of everybody going off and doing their own little pet projects are; you don't establish that very strong base in one particular area (Lab. Manager).

Such open-ended operation did not fulfill the tenet of a research Centre as combined, concentrated expertise.

Another way of understanding leadership-in-research is from Centre B, where under Bernard's direction, he "did not want to get involved with the project teams" in which his staff worked, having "too many things of my own to do". Most of his senior staff enjoyed good collegial working relationships, and while retaining authority over their own projects, would wander in and out of each others' offices, discussing ideas and gathering feedback from each other. They were unhappy with D-Five for leaving them stranded by an early resignation from the Centre, where they enjoyed working, but which Sandstone considered to be in a: "precarious financial situation and in danger of being closed down" (Bernard). This search for, and sharing of input for their work I see as leadership-in-research without a Director's involvement.

External focus

The fourth major aspect of Directorship is the need for a focus external to the Centre and the local context of its university. To do this, Directors needed to withdraw from some of their active involvement in research. An external focus was essential because Directors were expected not only to generate research funding, but to maintain their institution's prestige by visibility in the academic, scientific, commercial, and often general Communities. Universities endorse their Centres as areas of strength, and cannot afford to have them not succeeding: "You have to win, just to survive" (SRF, Centre B).

Directors were well aware of their ability to negotiate the most advantageous structural arrangement for their Centre, both inside and outside their current institutions. This might involve organising its original structure, changing its structural relationship within its host university, or moving to another institution with a culture more conducive to reaching the objectives. Most Directors in this study exercised, or considered exercising, their authority in this matter. Ernest, having moved Departments voluntarily within the changing structure of a newish Utech university, later changed his reporting relationship to the Faculty Dean, in preference to a Head of Department with no research background and a wish to control the Centre's more abundant finances. On the suggestion of her Funding Body, Dorothy agreed to change her Centre's institutional allegiance, which involved leaving the institution where she had worked for twenty years. Arthur insisted Centre A be outside the Faculty structure, freeing him from bureaucratic requirements and giving him autonomy to concentrate on the Centre's aims. Christine stayed with her current Sandstone Department, but only after careful consideration of strategic fit when other Departments sought to attract her Centre. Barry moved his core group from an increasingly unsupportive environment to one much more conducive to fulfillment of his aims, and Frank used upward influence on his hierarchy to introduce a revised funding structure, assisting all NewUni's Centres and enabling them all to survive. These decisions convey the power of Directors as a balance to the institutional power that exists to abolish a Centre.

Arthur was the Director exercising most influence over his external context. He used influence generated in his earlier life to persuade core sponsors and others that

Centre A's research could meet their needs. His staff considered him "really committed" to the improved social outcomes at which the work aimed. Once the results were finalised, he continued to liaise proactively with his sponsors and other funders to encourage practical implementation, "selling the research", so that sponsors became convinced the results should be actioned. Without Arthur's outside experience, it seems unlikely he would have developed the reputation to exert such influence. A solely academic career may not have enabled him to see the need for doing so, nor developed his skills in "making a good impression on the people who pay the bills" (Project Manager, Centre A). He not only arranged matters for the greatest good (in his view) by persuasive influence outside the Centre and often, use of authority inside it, but interpreted the authority of his Directorship as *giving him the right to do so*.

Christine was strong in networking. Several recent notable successes had propelled her and Centre C strongly into the practitioner arena, because of the instant application of their work to real world problems. At my visit, she was involved with "a lot of advisory committees for other organisations that either give us research funding or are research organisations", and these contacts provided her with opportunities for developing research proposals and becoming known to funders. Her Centre was at the stage where it had: "a sufficient profile that people want a person from this Centre involved in some of their projects [...] so, the Director has to do it". Christine was also *politically aware*, ensuring she communicated with her several audiences in appropriate ways, with good activity in the academic journal and conference areas. We can compare this with D-Two in Centre B, who paid too much attention to the external funders' demands and too little to the need for "landmark articles in the journals few people would read". As a former colleague said: "He did not understand the politics".

Dorothy did not discuss her work outside the Centre with me to the same extent as did Arthur and Christine. However data from her colleagues, and the list of speaking engagements shown in Centre D annual reports showed her to be heavily involved in her relevant professional area: "She had the reputation and the Centre was built around her" (Dean, Centre D). The Centre's RA knew Dorothy was on the data monitoring committees for three large cooperative studies. Her long-term colleague mentioned how

actually translating the research into practice required “a huge amount of greater effort. It goes on beyond the time of the project, because always [...], after the papers are finalised and the funding is finished and you are working on the next project, you are still going out talking about previous research” (RF). This follow-up effort is somewhat similar to Arthur’s own. Another colleague saw Dorothy as “involved in the world external to the Centre, but it is not her *raison d’être*. Her commitment to changing policy is more subtle ... she would do it in a number of ways, working behind the scenes. She is certainly very committed to networks within and outside Australia, but ... she isn’t the sort of person who goes and lobbies politicians to change policy”. Dorothy had gained in confidence after her sojourn in another Centre overseas. She now felt she could use Centre D’s good record in promoting the Centre by “not being diffident about how wonderful we are”, and was considering seeking funding from philanthropic and other overseas sources.

Although involved with top international researchers and a national expert, Ernest did not appear to be greatly involved outside the university within his city and state, his Dean conveying that Centre E was not well known in relevant industries. Ernest’s heavy involvement in teaching and Faculty matters would have made it difficult to find time for such liaison, and his scientific area was one where results were often seen as “bad news” for people, which may have contributed to his funding problems. His involvement was with his colleagues overseas, working in pockets of related expertise around the world. This, however, was not helping his Centre in its search for local funding. Frank, Director F, was externally focussed in his search for sponsorship and attempts to induce outsiders to use the Centre’s services. However he too had always worked in academia and admitted he was without business skills. His Centre’s promotional material focussed on what could be provided for outsiders, a ‘selling’ approach, rather than on emphasis on seeking out those people’s needs and his ability to fulfill them, in a ‘marketing’ approach. Frank and his colleagues did not focus on the Centre’s extremely broad, long-term outcomes, in the way Arthur, Christine and Dorothy did on theirs, although on questioning he admitted being asked to assist the community on several occasions. The focus on acquiring funding for the Centre may have caused these possibly voluntary actions to appear unimportant.

Barry and Bernard were academically well qualified as Directors, but were not really comfortable in the commercial area. Little attention appeared to be given in Centre B to follow-up of work once the final reports left the Centre. Disciplinary differences and varied professional practices did appear to make a difference here.

Conclusion

Of the Directors in this study, those most actively involved with the external environment within their state headed the more stable and growing Centres. One of Arthur's Project Managers suggested that the Centre's success depended on the "quality of the work, its relevance, and our ability to attract the interest of others", and the discussion of issues, above, demonstrates the importance of these elements. Communication skills are particularly important for attracting the interest of outsiders to the research.

The section above on Directorship makes a substantial contribution to answering my research question seeking understanding of *how* Directors interpret and enact their role. Using individual interpretations of the role as signposts (see Chapters Four and Five), these Directors enacted it firstly by endeavouring to attract and retain capable, high quality colleagues, and permitting them, through leadership-in-research, to contribute to the quality of the research. Secondly, they used example and effort to guide their colleagues in producing or managing excellent research, drawing on a fund of largely unstructured past experience. In addition, the more successful Directors had strong links with groups in their external context, driven by the "politics" involved in acquiring funding as a precursor to achievement, and the need for building institutional prestige.

Next, in Chapter Seven, I argue that the concepts of *grantsmanship*, *watchful expectancy*, *partnering* and *involvement* embody the variety of skills required by a Director in meeting standards such as quality, relevance and interest, contributing to success.

CHAPTER SEVEN

THE EXPECTED OUTCOMES AND CRAFT SKILLS OF DIRECTORSHIP

Outline of the Chapter

Following the case reports in Chapters Four and Five, and the cross-case analysis in Chapter Six, Chapter Seven presents the theory developed in this thesis. The place and limits of theory in interpretive work are discussed, prior to detail of the theory I develop in answer to my research question: *How do university research Centre Directors interpret and enact their role?* As a background to the theory, concepts are developed for the outcomes expected of the Director in his or her role, by each Community of Interest, and for his or her own expected outcomes. These expectations are often conflicting for those in organisations such as research Centres, closely associated with the traditional values of academia, but who must also meet the more commercially oriented expectations of the world outside. This adds to the complexity of the Director's role.

In building theory to answer my research question, I then argue that Directors interpret and enact their role by developing and exercising *craft skills of Directorship*. These skills are conceptualised as meeting the varied expectations of those in each Community of Interest. Underlying each of these craft skills are a number of other more general personal skills. Directors develop these craft skills, building on the more general, underlying personal skills, to enable them to meet their Communities' expectations, to a greater or lesser extent. The way in which they do this is influenced by the differences in their specific university contexts, funding and disciplinary contexts, and their individual history, experiences and personality.

Theory in interpretive work

My approach to the work for this thesis has been exploratory and interpretive, as I judged appropriate for a largely unresearched area of inquiry. Interpretive work aims to provide enhanced understanding of a situation, and Blaikie locates such work within the *abductive* process of research. Abduction involves the construction of theory grounded in

everyday activities, “and/or in the language or meaning of social actors” (Blaikie, 2000, p.117). There are two stages involved; describing the activities or meanings of the social actors of interest, and deriving categories or concepts that can lead to understanding of the problem involved. In this process the researcher “assembles lay accounts of the phenomenon in question, with all their gaps and deficiencies, and in an iterative manner, begins to construct their own account” (Blaikie, 2000, p.181). This is what I did in constructing this thesis, using the lay accounts gathered from the Directors and their colleagues.

In Chapter Three, I noted how interpretive researchers consider situations to include multiple, often conflicting, meanings and interpretations, and attempt to capture the core of these meanings and contradictions through their work (Denzin, 1988, p.18). Uncovering numerous contradictions and multiple viewpoints during my analysis, I wrote the case reports in Chapters Four and Five attempting to acknowledge these differences, while still presenting a coherent, if greatly summarised, narrative picture of the influences on, and consequences of, each Director’s actions. This reflects the claim by Glesne and Peshkin (1992) that, rather than writing research reports, “qualitative researchers translate social experiences and construct narratives” (p.11).

My research question: *How do university research Centre Directors interpret and enact their role?* included the initial broad sensitising concepts *interpretation*, *enactment* and *role*. Theory in this kind of work is seen as the account developed by the social scientist in a lengthy, iterative process of organising explanations from the ideas embedded in the lay accounts. Because of the contradictions encountered, in developing theory I found Tesch’s explanation of *fuzzy* categories in qualitative research useful (Tesch, 1990). Morse’s typology of different kinds of theory in relation to qualitative research (Morse, 1997) was also helpful, and I review her types below, prior to presenting my own theory.

The theory typology of Morse

Descriptive theory

Morse sees theory of this kind occurring when rich description of a phenomenon is not only “the first step in all qualitative inquiry” but is also an end in itself (Morse,

1997, p.173). Primarily synthesis, this kind of theory includes minimal inference and abstraction. As a preliminary to concept and theory development, it can also be the foundation for more abstract work. A theoretical context, surrounding the collection of data when this is aimed simply at descriptive theory, provides a mechanism for limited, or local, generalisability (Morse 1997; Miles & Huberman, 1994). This is so because it “provides insight into the mechanisms, the temporal ordering of complex events”, as in my case reports. If the phenomenon under study is a common one, the contextual features of the situation in which it is observed during research permit some generalisability to similar contexts; as the number of cases and level of abstraction increase, generalisability also increases (Morse, 1997, p.175). Presenting a descriptive section in a study, prior to theory development, is a strategy commonly used in case studies, (Morse,1997), although she sees qualitative researchers as often “theoretically timid” (p.176) and uncomfortable with moving their analysis to a higher theoretical level.

Interpretive theory

The next level of theory is interpretive. This is what makes “the implicit explicit”, allowing the reader instant recognition of the phenomenon, even when not a participant. Thus, says Morse, “the research is not context-bound and it includes theoretical abstraction”, because linkages are made to the literature. The researcher’s reflection and interpretation are major components of this work, so the reader may appreciate the analytical work done beyond data collection. Because this kind of theory often focusses on a single concept, theoretical links between concepts are absent. As the reader can identify descriptions in him/herself or identify them in others, interpretive theory is generalisable, but limited to the phenomenon, argues Morse (p.176).

Disclosive theory

Disclosive theory “reveals the structure of knowledge and the intricate complexity linking concepts and delimiting stages and phases of a process”, and is developed mainly through grounded theory or concept development methods. Theories developed in this way are “process-bound [...] and generalizable to other contexts and other participants experiencing similar phenomena” (Morse, p.177). Morse’s disclosive theory includes both substantive (topic-focused) and formal (concept-focused) theory (Glaser & Strauss,

1967). Although the methodological requirements of a grounded theory design meant that, as an offshore doctoral student I could not undertake this kind of research, my theory is grounded in data.

Explanatory theory

The highest stage in Morse's typology is explanatory theory, in which concepts and linkages are identified. While such theories are important, few have been developed from qualitative work because of its limitations regarding sample sizes and context-boundedness (Morse, 2000, p.178).

Theory in this thesis

Relating the above typology to this thesis, each case report in Chapters Four and Five may be seen as an example of the simplest level of theoretical abstraction, descriptive theory. These reports aim to show how each Director went about his or her work within the Centre's particular context and its influences, and the effect he or she had upon their colleagues and Communities of Interest.

Moving to the next level, interpretive theory, and looking at Directorship as one concept, this is the kind of theory I develop below in the sections on expectations of Directors, and skills of Directorship. These skills may be seen as fuzzy concepts because of their connected and overlapping nature, and because the same skill may sometimes be used in simultaneously meeting the expectations of more than one Community, and of the Director himself or herself.

How university research Centre Directors interpret and enact their role

When a Director is appointed to head a Centre, he or she is recognised for past ability and achievements. Role, the sensitising concept introduced at the outset of this thesis in Chapter Two, I defined as per the Concise Oxford Dictionary: a person's characteristic or expected function, or an actor's part in a play. Certainly the Directors participating in the second stage of this project had no 'rehearsals' for the part, did not always 'know their lines' and needed to 'ad lib', learning from 'past performances' by 'more experienced actors' as they worked. Even when the lines became more familiar, their individual scenarios meant constant readjustment to 'changes of scene', not always foreshadowed by 'noises off stage'. In the way that no two actors interpret and enact a

part in precisely the same way, so too, individual Directors' interpretations of their role were influenced by their different and changing visions of what could be achieved, their personal life circumstances and socialisation in a discipline, and the expectations of those funding and supporting their work. In the next section, I develop umbrella concepts for the outcome expectations held of Directors by their Communities, and reciprocal concepts for the skills involved in Directorship, involving a more or less satisfactory achievement of these outcomes.

Outcomes expected of the Director

Members of each of the Director's separate Communities of Interest hope and expect the Director will achieve certain outputs and outcomes. *Outcomes*, in this thesis, are the flow-on results from achievement of *outputs*. An output may be journal publication of research results incorporating new findings about a substance suspected of causing certain types of cancer. An outcome of this might be an eventual reduction in the rate of such cancers as people avoid the harmful substance (see Plant, 2000). Outputs are much more controllable than are outcomes, which may be unintended (Stacey, 1993). In developing holistic concepts of the desired outcomes, I draw principally on interview data provided by the participants, both during my visits and through subsequent comments and reflections on ideas I presented to a number of them, particularly the Directors, as my study progressed. This part of the work was also informed by my observations and perceptions (as the research instrument in a qualitative study) during four visits to Australia, and by reading relevant reports, articles, and higher education newspapers, over the years of this study.

In his or her role, a Director interacts with a variety of groups I have called Communities of Interest (see Chapter Four). The attention members of these Communities give the Director varies with the extent of the reliance Community members place on the Director (and by association, his or her Centre) to contribute to fulfillment of their own needs and wants (using the terminology of economics). The scarcity of a Centre's expertise also influences this attention; what is rare is more highly valued. In discussing role, Katz and Kahn write: "To a considerable extent the role expectations held by the members of a role-set — the prescriptions and proscriptions

associated with a particular office — are determined by the broader organizational context” (Katz & Kahn, 1978, p.196). However, for these Australian research Directors, the role expectations are determined not just by their broader organisations, that is, their universities, but also by their national and global contexts. This is because their Communities may include: funding bodies in various parts of Australia, the international research communities of their own and associated disciplines, and practitioners, policy makers and the general community.

Chapters Four and Five traced the importance of each of the following three groups for the Director: the host university, the funding bodies, and their colleagues working with them in the Centre. These groups comprise the Director’s major Communities, interacting with them more frequently or significantly, and with greater reliance on the Centre’s outputs and outcomes for fulfillment of their own needs and wants. The sometimes more distant policy, practitioner and general Communities are the potential users of the research, in the Director’s wider context. If a Centre Director can achieve the outcomes a Community implicitly or explicitly expects, to an acceptable degree, that Community will regard him or her as successful.

Outcomes expected by colleagues and staff

This concept is: *enabling the making of a recognised contribution*. Apart from Frank’s Departmental colleagues in Centre F and occasional tenured colleagues in the other Centres, research and support staff in this study were employed on short term contracts. The examples below show that *security*, with its financial and emotional connotations, is still important in a culture where academic tenure has been the norm until very recent years.

Security Even in Centre C where Christine and her long term colleague were both tenured, the comment on their situation was: “there are going to be cutbacks within the university as a result of changing Federal government policies with respect to funding, and our jobs are only as safe as the jobs in the Department and the Faculty are” (A/Prof., Centre C). Directors A, B and C were able to offer their staff loaded salaries or unusually rapid progress up the salary scale, and as they said: “... that made up for the insecurity to some extent” (Christine, Centre C). A post-doctoral fellow in Centre E, paid by Utech

and not the Centre, felt that “the university itself, does not ... support me I feel, other than my salary. Mainly because the people who actually give the funding ... may change their minds”. One of his Centre E colleagues, the Research Fellow occupying an “elastic” position for eight years, said: “I’ve been on every fraction from 0.5 full time to 0.9 full time; and I’ve been on contracts from one month to one year. It is all very insecure”. Despite Ernest including her among “the cream of the researchers” in their field, few other opportunities existed locally for work in the specialised area in which she had retrained, and while she obviously had other sources of financial support, she appeared to have discarded any ideas of career progress usual for most tenured academics.

Less dedicated contract staff often resigned if they could obtain tenured positions: “I am sorry, but I simply have to take a job with some kind of security”, said one of Christine’s former Research Fellows. A Senior Research Fellow working in Centre C at that time told me: “There is no certainty. [...] I don’t see it ... as a career path in itself. It is a stepping stone to something else. Who knows what?”.

Arthur, in Centre A, related:

We can attract young people straight out of university, who are prepared to take the risk of not having tenured appointments, and we can attract this group of five senior people who want to work in this area rather than elsewhere, and who perhaps don’t have family responsibilities any more, or can take that very slight risk, or are sure of themselves and know they can get employed elsewhere if our funds dry up. But we have great problems with attracting middle range researchers - people in their thirties who have young family responsibilities. Providing a career structure for them is the other factor upon which the success of the Centre depends.

Dorothy, in Centre D, expressed her concern that colleagues could be paid only at a relatively low level, without appropriate recognition for their skills: “All we can offer here are the benefits of doing a job you really enjoy, with a lot of autonomy”. The staff in Centre B told how they enjoyed sharing ideas with other “affable” people in their small group, often lunching together, frequently discussing work and “shouting at each other, friendly [like]” (RF) when disagreements occurred. While they clearly wanted to maintain this lifestyle, they were conscious of “the true crux of the matter ... that the funding imperative matters for the operation of research Centres, and [their] outcomes” (SRF, Centre B). At my visit, they had only short term financial security for their work in

the Centre, (which Bernard later indicated had been “under threat of closure if the overdraft could not be reduced”) and little personal support from their Interim Director. Bernard’s infrequent staff meetings, “three or four this year” (looking back in November), appeared to do little for the morale of his staff.

Compensating for the insecurity Most of the contract staff would have preferred greater financial and employment security than their present uncertain, project-centred conditions allowed. To compensate at least partly for their turbulent environment, they wanted their Directors to provide supportive collegial reinforcement to increase their sense of psychological security. Centre B, with four permanent or interim Directors in place over a five year period, provided the most striking example of this. One long term researcher there related how D-Five spent time with those staff left behind (after others moved out with Barry, D-Three), attempting to help them find direction, and thus “make them feel secure”. Also in Centre B, Bernard described a permanent Director’s role as being to attract more secure funding and to “settle everybody down”, implying that ‘being unsettled’ was not good for the staff or the research.

At my visit, the staff in Centre B were still somewhat resentful that their “person-oriented” D-Five had left before his contract term expired, throwing the future of the Centre once again into doubt. Four of the Centre’s six Research Fellows were seconded to their positions, signalling that D-Five may have sought staff on this basis to reduce both the usual insecurity of contract staff, and also, his possible future need to render them unemployed, should efforts to secure sufficient funding fail.

Role Modelling Staff wanted their Director to be a role model for them. They looked for methodological suggestions for ways to approach a new project (RF, Centre F), innovative ideas for tackling a topic (RF, Centre E), and an “accessible and approachable” Director to help with technical issues or advice on career directions (RA, Centre D). The Centre B Senior Research Fellow now heading his own Centre saw “a reputation through publications” as essential for a Director. The existence of such a record conveys that the Director is successful as an individual, having engaged many times in all the processes involved in research. He or she is expected to possess a fund of knowledge and experience to share with colleagues, enabling them likewise to achieve

success. The Centre D Research Fellow who spoke of the huge opportunity that still existed for her to learn from Dorothy, even after six years of working together, recognised the value of this kind of experience. A successful Director is judged likely to repeat his or her success, and association with such a person assists the learning process for those with less experience or success, giving contract staff an increased sense of security.

Innate Outcomes To some extent, the intrinsic rewards of *doing interesting and worthwhile work* also appeared to balance out the inherent uncertainty of contract work on 'soft' money (short term grants). The Centre E Research Fellow with an "elastic" position (see above) explained that: "You don't go into research unless you know you like it". The research staff with whom I spoke, while recognising the underlying insecurity of their situation, were pleased to be involved in meaningful work and to be using their intelligence, education, training and experience in the discovery of new knowledge, particularly when the research might lead to favourable outcomes for society. As Arthur's Research Fellow declared: "It's interesting! Challenging! And I hate being bored! And we get the chance to do worthwhile projects. Pretty good to be here". Those working with post-graduate students often mentioned the rewards of seeing them progress, and others enjoyed the process of "actually publishing papers, giving presentations, the chance to see work in the public eye ... hoping one's work has an impact for the better" (RF, Centre D). Christine's Management Officer in Centre C, who also participated in the research, summed up the sentiments of a number of others when he said: "Doing useful things is important to me. [...] The thing that has driven me most has been the idea of doing productive, useful things; making what I consider positive changes to society. Earning a salary is useful, but that is secondary to the sense of innate outcomes, and that is what I get here".

Summary This discussion shows that research Centre staff were aware of the insecurity of their employment, and hoped their Director would act in ways making them feel more secure. A Director's prior and continuing success in research demonstrated his or her ability to act as a role model for them, and was a way of generating greater feelings of security for this group. The intrinsic reward resulting from attempts to contribute to "innate outcomes" through their work was also important. The factors cancelling out, or

reducing, the inherent uncertainty of employment on soft money from research grants were: *receiving collegial support, having a sense of innate outcomes from their work, and role modelling by their Director*. These factors may be merged into an umbrella concept of the outcome expected by those working in research Centres: *having confidence to do worthwhile projects with successful colleagues as a resource*, or in other words, *being supported to make a worthwhile contribution*. This may be rephrased as an expectation of the Director: *enabling the making of a worthwhile contribution*.

Hierarchy of the host university

The concept in this case is: *creating a research profile*. While I collected responses from only five members of the hierarchy, the Directors and often their colleagues were aware also of institutional expectations. The host Community expects a clear return for the notional ‘investment’ they make in their Directors through public endorsement of Centres and ongoing financial support. The expectations hierarchy held of their Directors were few and unambiguous:

- “to strengthen the research profile, and be successful external earners; provide expertise the Faculty can draw on” (Dean, Wannabee);
- “to achieve the Centre’s mission, goals and objectives. It is very easy to assess their success if they provide an annual report, which tends to include the number of projects they are conducting, and ... the revenue for their operations, and the publication record for members” (Head of Department, Sandstone);
- “to gain public credibility, obtain external income and [...] the extent the Centre’s work is disseminated through publication” (Dean, Sandstone);
- “to attract research funding from industry and competitive granting bodies, [produce] research outputs, attract and retain high profile staff, [show] demand for their commercial services, contribute to Faculty teaching programs, and the general reputation/standing of the Centre in its own professional area and in the community” (Dean, Utech);

- “to create a profile more than anything else, generate awareness profiles for the university and for commercial funding [...] to be good fundraisers, good money managers, have a high profile themselves” (Dean, NewUni).

The recurrent theme in these comments is “creation of a research profile for the university”, a major way of building and enhancing institutional prestige. Attracting external research funds is the necessary but not sufficient factor on which the research process, and its consequent outputs and outcomes depend. Each administrator emphasised the need to attract research funds into the university. Success in doing so implied that outsiders saw sufficient merit in a Centre of the university to allocate it funding, or a contract to conduct work, *ahead of other possible contenders*. The funding body’s value judgment thus contributes to *an increased university profile*, especially when the funding source is prestigious. In the recent past in Australia, research grant dollars achieved and publication outputs have been totalled, by institution, and the results used to rank institutions in published league tables.

Ikenberry and Friedman (1972) in their study of US Centres see institutions of higher learning having a disproportionate reliance on both apparent excellence, and readily available evidence of productivity in research. They suggest that external support gained for [Centres] demonstrates “the social utility of the modern university”, by strengthening the bonds between it and the needs of the society in which it exists (Ikenberry & Friedman, 1972, p.97). This claim matches the expectations of these members of the Australian university hierarchy, that research Directors, with their track records of “apparent excellence” in grantsmanship and conducting research, will manage the funding acquisition process successfully. The apparent excellence of research Directors is transformed through the acquisition of external funds (often accompanied by public judgment of merit and worth) into new knowledge disseminated through academic publications (always accompanied by specialist editorial and reviewers’ judgments of merit and worth), and often, into further work as part of an ongoing research programme. This cycle is the core function of a university research Centre, and assists in maintaining the host university’s reputation and prestige.

Clark claims that prestige, for universities, is “often the foremost consideration in institutional affairs”, and “reputation, the most valuable resource of all” (1995, p.228-9). The process of generating prestige (a preferred term given that a ‘reputation’ may be other than ‘good’) involves relationships with Communities in the Centre’s external context, that is, members of the funding body Community and the research Community as peer reviewers of research proposals and ‘gatekeepers’ of access to publication, in addition to the policy maker, practitioner and general Community. Winning grants and conducting high quality research, which generates publications in top journals and invitations for speaking engagements, are the major ways in which Directors generate prestige. Although several Deans and other interviewees saw an expectation of Directors to generate “column inches in the media” as feedback for the hierarchy, and sponsors, that their Centres were appropriately engaged.

Members of the university hierarchy who support the Directors, and their Centre colleagues, also benefit from their association with such competitively earned success. Christine, in Centre C, referred to this when she said: “Everybody basks in the glories of being successful”, with her Head of Department and Dean sharing in the prestige generated by this successful Director from within their domain. A well developed profile for a university implies that students will continue to vie for the limited places in such prestigious institutions because of the associated “status goods”, as Marginson argues (1997, p.7) (see Chapter Three), hence maintaining the quality of the student base for the teaching function of the university.

Summary University hierarchy expect that research Directors will succeed by: *generating funding for the research programme, earning external acknowledgement of their expertise through high quality outputs, and in consequence, maintaining and enhancing institutional prestige.* The umbrella concept incorporating these expectations is the outcome: *creating a research profile.*

Funding bodies

This concept is: *presenting a credible track record.* The president of the Australian Vice-Chancellors’ Committee has recently been reported as saying that the changing balance between public and private funding of universities was “the biggest

single policy issue in higher education” (Illing, 1999). Bodies funding research include state and federal government departments, statutory foundations, professional associations, other non-profit bodies, and commercial and industrial organisations. The expectations of these different groups of organisations are explored below.

Relevance It may be assumed that those reviewing applications for the most prestigious national competitive grants wish to select the most suitable applicants from among many hundreds. The success rate for these grants is around one in four or five. Because research is an inherently uncertain process, the logical assumption is that reviewers want to ensure, as best they can, that projects selected will be undertaken by competent, experienced researchers, who produce results that withstand scrutiny within a reasonable timeframe and within budget. For many of the experienced and capable research applicants, the reviewers could almost take these attributes for granted. However, the entry to the competition by so many more researchers, under the Unified National System, which doubled the number of Australian universities, means the reviewers cannot take it for granted.

The *relevance* of a proposed project to the stated priorities of these funders is undoubtedly a prime factor in the award of funds. Director C admitted that these funding bodies “have quite a lot of influence” on the way a proposal is presented, because of the frequent need to twist a proposal “to make it sound like it’s doing something quite different [from your own idea]”, so that it fits with the priorities for that year. When grant applications are called for, say, by statutory foundations, assessment of the extent to which projects meet the objectives of those bodies also plays a large part in funding decisions.

Competition Competition for the most prestigious grants is described as “fierce”, with the Laboratory Manager in Centre E relating how: “One of the major funding bodies has just been to speak to us [at Utech], and they’re getting hundreds and hundreds of very high level grant applications, and [...] trying to discriminate something that’s very very good, from something that’s just very good, and .. it’s just very difficult to do”. As Bernard said: “Despite good staff and good track records ... it’s a grim business”.

The formal track record of grants and publications which accompanies a proposal submitted for competitive funding is the major way researchers communicate their experience, expertise and achievements to the review committees of funding bodies. “The scientific community and people who are giving research grants clearly look for a publication record as a sign of success. I mean (chuckle) that is the main criterion of success in the scientific community” (Lab. Manager, Centre E). She referred also to advice given by the Utech Research Office staff: “Continuously they say ‘You need a very strong publications record in a defined area, if you want to get grants there’. We’ve got such a young group and they just don’t have the reputation of people working in the area for a long while. Reputation has a big part to play in ... attracting funding”. In Centre F, Frank had used a strategy of collaboration with a successful Sandstone researcher: “He’s a big [discipline scientist] there, and we were sure we’d get the funding...”. However, this had not paid off, much to his disappointment, showing that reputation alone is insufficient ammunition in the unpredictability of the competitive grant round processes.

Several interviewees explained how members of review panels may change from year to year, with the feedback provided to applicants containing inconsistencies. In two Centres, I heard how previously unsuccessful, resubmitted applications had been returned with suggested changes which contradicted those suggested the previous year, after review by a different panel. Under such circumstances, an element of speculation occurs. As Director F said: “It’s a game that’s played; we’ll keep on playing”.

In the ‘betwixt’ area between the prestigious grants at one end of a continuum and simple contract research at the other end, other competitive bids are often invited for grants to conduct research attuned to the focus of a particular funding body, or tenders sought for specific projects. These are either advertised in newspapers or requested from selected research providers, often at short notice. Commercial organisations offering contract research usually have specific needs and limited negotiability. Ernest explained that: “They come suddenly. It’s inherently difficult to meet the deadline because we’re not sitting here idly waiting for the consulting project. [...] ... by and large we’re meeting deadlines well enough to get repeat business”.

The place of politics Christine's comment (above) on twisting the proposal was also an example of political sensitivity to the attitudes of the funder, which is a way of influencing funding decisions: "it all comes down to politics, now, for both government and private sector grants" said Bernard in Centre B. Arthur admitted he told Project Managers: "You can't say that!" if comments were too direct, or considered undiplomatic for particular funders, while Christine's colleague conveyed that: "When we became involved in [a large industry-supported contract] it was clear that certain academics around Australia were *persona non grata* with the industry and would not have any research funded by them" (Management Officer, Centre C). Such a research group would be effectively "locked out" from affecting or participating in future changes in an industry sector, he said, so that to stay involved, care was needed in how proposals and reports were phrased.

Summary This section of Chapter Seven shows how the expectations held by funding bodies of the Centre Director have been identified as: *giving assurance of researcher competence, submitting relevant proposals and creating trust in researcher sensitivity*. The umbrella concept combining these expectations of the members of funding bodies into an outcome, is thus: *presenting a credible track record*.

Policy makers and Practitioners

This concept is: *providing reliable useful results*. Members of these Communities usually have much more intermittent and tenuous links with Centres, their relationships with a Director being based on possible advantage to their Community. Although members of these groups were not interviewed directly, the interview data from other participants in this study was sufficiently rich and detailed to enable me to elicit the principal expectations of the members of these Communities.

Reliable results Sometimes, policy makers such as government bodies are also funders of a Centre's research, and the subsequent research outputs may be used, along with other inputs, in developing policy. For example, on occasion the work of Centre A had a clear influence on policy development. Arthur related the story of one project conducted for the federal government: "The Minister liked it so much the rules went in and Australia got all these [really good measures of benefit to the community].

Canberra [that is, the federal government department situated in the Australian capital] had to reprint the report twice, and the US [industry] representative commented, ‘We ought to do things the same way here!’”. In this case, it is possible that the policy makers may have acted on the conclusions of the research because they saw political advantage accruing to themselves by doing so. However the public nature of the changes and the widespread adoption of the new measures meant that if they resulted in poor outcomes, the political consequences for those policy makers were likely to be adverse. In implementing those changes, they demonstrated faith in the researchers’ ability to produce *reliable, trustworthy results*.

In Centre B, the link between research and outcomes was often less direct. The Deputy Director explained: “It’s like some work you’re doing throws up interesting ideas the policy makers may use in creating policy and draw on what you’ve done, because they draw on a lot of other things as well”. When Barry (D-Three) headed this Centre, some of his research had been directly adopted as policy, much to the disapproval of various state entities, which subsequently made it difficult for him to attract local funding.

Working with the media, policy makers and practitioners Media people often like to quote Directors as experts, to give greater veracity to their reports. One researcher in Centre B explained how he found the Centre less restrictive than his former employer, a government department: “Much more academic freedom here - we have the freedom to cover issues well. You don’t have to worry if you’re talking to the press. In [the department] there was always a problem with the press ringing up.” This comment showed the work of the Centre researchers to be of interest to outsiders, who sought information from them, because of the standing of the Centre in its local community. For this reason, Barry took every possible opportunity while at Sandstone to participate in radio interviews. Christine’s Management Officer also explained how the media people, when approaching Centre C for “a quick quote around an area, need that sort of sense that the person they are talking to has the [necessary] breadth and depth”.

Christine, Director C, had seen her work being included in policy and implemented in improved practice across Australia. “Since [the results of a successful project were made public] I get invited along to all the big policy meetings”, she told me.

Practitioners also sought her out to ask advice on performing their work more effectively, because of the good reputation she was developing. Dorothy, however, provided a different view of the aim of some unsought approaches: people sometimes telephoned, seeking advice, but did not really want to take it. While they wanted to be able to say “I discussed it with the Director of Centre D” to give their proposal an air of respectability, what they were attempting to do would be something that Dorothy considered: “You’d never do in a thousand years!”, so that care was needed.

Another Centre D Research Fellow told me she “had been invited to [country town] to talk to community groups about the findings of some of our projects, and to talk to [practitioners] about our recent research”. Dorothy’s large number of speaking engagements meant she delegated such duties to her staff whenever they had appropriate knowledge. The demand for knowledge in direct, practical ways was apparent.

Summary The expectations of the Director indicated for the policy and practitioner Communities emerged as *providing trustworthy expertise, being relevant and communicating proactively and appropriately*, with the umbrella concept combining them into an outcome expressed as: *providing reliable useful results*.

The Director’s own expectations

The expectations of the Directors were clear. They hoped and expected to remain involved in conducting good research, usually directly to some extent, or at least, cooperating with and assisting colleagues in doing so. This is an unsurprising finding, as *they had been socialised to expect academic success*. Most Directors would prefer active involvement in research, rather than solely managing it, if forced to choose. For example, Ernest, facing the situation where his Centre might not attract sufficient funds to remain a separate entity, suggested: “I’d rather have the Centre disappear, and me getting adequate grants and we have half a dozen people doing the research, rather than [my] managing the Centre but with no interest [in the research] except ... in putting my salary up”. Dorothy, having returned from overseas to a fairly young Centre, spoke of persisting until the research her group wanted to do was funded. She and her colleagues seemed to have no fear of failure, despite some refusals. Christine, Director C, who had succeeded in a team of collaborators rather than as a solo researcher, and who still engaged in considerable

team work with her colleagues, had become Director almost by default, when the Centre's original Director moved on. She was the only one who was uncomfortable with her Centre's success, because of the commonly held assumption that she was its prime instigator. She was very much aware that Centre C's success was due in equal measure to the efforts of her colleagues, as to her own efforts. I saw her attitude as a reflection of her long socialisation in a non-university setting, where collegial practices and democratic modes of decision making were the norm, in contrast to the emphasis on the "high achieving individual" which was such a strong feature of her current Sandstone institution.

Outcomes of the research The focus of a number of Directors went beyond the mere completion of the research and its dissemination, adding to the body of knowledge in their disciplines. Those Directors hoped to see the results implemented in policy or practice, and worked proactively to increase the chances of such outcomes from the research. (Outputs are the physical article, conference presentation or other means of disseminating research results, while outcomes are the eventual effects of the use of that knowledge.) These hopes were necessarily related at least partly to the specific objectives of a Centre. Directors whose Centres were growing, or had recently done so (Directors A, C and D) all worked outside their Centres through networking (Director C) direct-approach (Director A), sometimes using behind-the-scenes advocacy (Director D), to encourage others to take their research results a stage further. The reason for this is found in the different ways in which Directors interpreted and hence enacted their role.

Individual ambition While some Directors were driven to work towards achieving outcomes for the ultimate benefit of society, others, such as one of the short term Directors of Centre B, had more personal objectives. Director Four (D-Four) eventually left the university after directing two other Centres, for a situation of greater financial advantage, because he thought a host university should share the benefits from a Centre more liberally with its Director, because of the effort involved. Commentator Two also left, taking his skills to industry, "emotionally exhausted" after eight years as a Director. He felt the rewards associated with being Director were inadequate compensation for the emotional investment needed.

Summary The expectations the Directors held for themselves as heads of Centres related to *maintaining research involvement, achieving outcomes and realising personal ambitions*. I call the umbrella concept for this outcome: *continuing to achieve*.

Total expectations held of the Director

In this section on expectations, comparative data from all the cases was used to develop umbrella concepts outlining both the Directors' own expectations of their role and those of their Communities of Interest. Because success within a research Centre needs to be proven over and over again, the Director's role may be conceptualised as processual. For this reason the umbrella concepts broadly defining the role of the Director, as presented in Table Seven, below, are expressed in gerunds. I have shown these concepts to be firmly grounded in data and the "meanings of the social actors of interest" (Blaikie, 2000), leading to understanding of the situation involved.

Table Seven: Expectations held of Research Centre Directors

<u>Expectations</u>	
<i>Community of Interest</i>	<i>Expected outcome</i>
Communities of Interest	<i>Enabling the making of a recognised contribution</i>
	receiving psychological support
	having a sense of “innate outcomes”
	role modelling by their Director
	<i>Creating a research profile</i>
	generating funding for the research programme
	earning external acknowledgement of expertise
	maintaining and enhancing institutional prestige.
	<i>Presenting a credible track record</i>
	giving assurance of researcher competence
	submitting relevant proposals
	creating trust in researcher sensitivity
	<i>Providing reliable, useful results</i>
	providing trustworthy expertise
	communicating proactively and appropriately
	<i>Continuing to achieve</i>
	maintaining research involvement
	achieving outcomes
	realising personal ambitions

Conflict for the Directors

These umbrella concepts indicate the multiple expectations facing the Director in his or her interaction with members of their Communities. As described in the case reports in Chapters Four and Five, expectations held of Directors are often in conflict, which generates tension. These tensions often stem from the differences between academic values such as *academic freedom* and *collegiality*, absorbed from lifetimes spent in traditional academic cultures, and the more commercial attitudes required of Directors operating in increasingly business oriented ways with funders and others outside their universities.

Examples of this type of conflict may be seen in the cases of Ernest, Director E, and Bernard and Barry in Centre B. The Utech and Sandstone hierarchies expected full participation in university affairs from these Directors, despite the additional duties they were expected to undertake in relation to their Centres. The Directors found this impossible, with Barry moving his Centre elsewhere, Bernard rejecting the position and Ernest's Centre suffering because of his lack of time for research of his own, to strengthen his track record.

A further conflict of expectations existed for those Directors who were unable to attract funding for more traditional academic research, because their interests were not sufficiently related to those of possible providers of research funds. This had been the situation with the minor discipline in Centre B for some time, leading to conflict between hierarchy, Advisory Committee members and Directors, as Bernard said: "An albatross around the neck of the Centre, [...] causing them [Directors] all angst!". The Centre's Profile document for its review admitted that the short term funding available for contract research was often for work not closely connected with the Centre's desired ongoing research programme, a recognition of this conflict.

Further examples were present in Christine's situation in Centre C. She was aware of her Sandstone's wish for highly academic research, contrasting with her ability to provide funding bodies and practitioners with the good applied work they sought. Sandstone's fraught financial situation meant its hierarchy was impressed with the funding she and her colleagues were able to generate, despite the nature of the work. The

needs of the Sandstone hierarchy for funding and recognition meant that traditional expectations of the type of research work suitable for its academics changed: “If you are known to be getting lots of projects, that’s an icon of success — people respect you for it, in an awe-ful way” (Christine). This Director adapted to the culture of her new institution by a continuing internal public relations campaign to market her Centre’s achievements across campus, and by working hard to achieve a fair number of refereed journal publications, in addition to the research reports resulting from the applied work. The Directors with fewest conflicts of this kind were Arthur in Centre A and Dorothy in Centre D, because Arthur’s staff attempted little pure research, and Dorothy rejected contract work.

The next section of this chapter discusses the skills of Directorship, concepts I see as framing the different activities of the Directors in ways that enable them to meet the varied expectations of their Communities of Interest, and their own expectations also. While this is theory, not reality, the skill concepts are related to findings from the study. A discussion of Directorship as a process follows.

The skills of Directorship

I argue that Directors interpret and enact their role by developing and exercising craft skills of Directorship. While these craft skills might be called coping strategies, that is a reactionary term, ill-suited to people at the forefront of their discipline who are often proactive. While they might be called power resources, after Rost (1991), he relates these to influence, and Directorship concerns more than influence: “A Head of Department’s not going to tell you what to do as much as here” (SRF, Centre B). The skills of Directorship, as I visualise them, are: *grantsmanship*, *partnering*, *watchful expectancy* and *involvement*. These skills are substantially managerial, but also deeply attuned to the context, because academia is a different context from mainstream business and the Directors’ role calls for them to operate with a foot in both camps. Watchful expectancy uses leadership-in-research (see Chapter Six), a particular type of leadership I argue is appropriate for research teams, as one factor. Directors in this study already exercised leadership, by reason of their intellectual research achievements within their disciplines,

influencing by example and persuasive speech and writing. The managerial aspects of Directorship, involving responsibility for staff and resources, marketing, and public relations for their Centre, were the aspects in which they tended to have less experience.

Grantsmanship

In order to manage the issue of the need for research *funding* (see Chapter Six), Directors need to satisfy the needs and wants of funding bodies (see above). To do so, they develop the skill conceptualised as grantsmanship. (Grantsmanship was not a term my interviewees used, but during my year in Australia I found it to be well understood in academia.) Grantsmanship involves not only skill in writing grant applications and tender bids, but also the ability to ensure *relevance* to a funding body's priorities: "twisting it round so it sounds as if it's doing this" (Christine). Grantsmanship is not restricted to winning grants, as most Directors also undertake contract research more attuned to funding bodies' specific needs. Even when funding attempts fail, and the match with funding bodies' needs and wants is simply not close enough, the activity involved means Directors are still exercising this skill.

Included in grantsmanship are the skills of *identifying and proactively developing markets* for a Centre's research, as Arthur did, and also Christine, working more as an advocate. *Political awareness* is also needed to avoid offence to funders through lack of diplomacy, or insensitivity in presentation of results, while still maintaining academic objectivity in conducting the research. Grantsmanship also requires *negotiating skills* to treat and bargain successfully to a satisfactory contract conclusion: "business-type skills, to bring contracts in" (SRF1, Centre B), and "a Director who could sell your project" (SRF2, Centre B). Having acquired funds, *financial astuteness* is needed. Commentator Two, no longer Director of his Centre, spoke of his dismay in seeing the new Director spending all that Centre's reserves on one piece of equipment: "something I would never have done". Grantsmanship exercised well also calls for *an external focus*, being up to date with what is occurring in one's field and being aware of possibilities for collaboration with others, to achieve mutual ends. And for persuasive, influential, written and oral expression, *communication skills* are needed: "the ability to communicate his goals to people outside [...] because that is the way we make people believe in the work

we're doing, and encourage them to support us" (Lab. Manager, Centre E).

Successful grantsmanship meets the expectations of the funding Community, as also those of the university hierarchy Community. It is a vital skill, because the subsequent research activity and eventual outputs and outcomes depend on it. Success in grantsmanship also goes some way towards meeting the expectations of the Community of colleagues and staff in the Centre, by providing access to employment and setting in train activities which, in time, may well meet the expectations of both the policy, practitioner and general Community, and the Director himself or herself.

Partnering

Partnering is the skill of maintaining good working relationships with those having a vested interest in the Centre, while keeping the interests of the Centre to the fore. Directors require it to handle aspects of their Directorship associated with structure and collegial support. Chapter Six showed the importance of the host university for a Director because of the institution's power to abolish a Centre. On occasion, a major sponsor may also exist as in Dorothy's case, involving a triangular situation with greater potential difficulty. Appointment as a Director is a public personal endorsement of that person by the university, based on ability, achievements, and sometimes, politics. It offers the Director opportunity for *personal fulfillment* of his or her own aims, *provided they have sufficient skill in grantsmanship* or can attract staff or associates with this capacity. In order to achieve the Centre's objectives, a Director is usually given more responsibility for the Centre's human resources and often, more authority over funding, than are Departmental academics. D-Four, Centre B, was highly indignant because Sandstone's policy on Centres meant the Head of Department, in charge of his Centre subsequent to Centre B, had control over money he had personally attracted to the Centre, and was spending this according to his Departmental priorities. For a Director to remain motivated he saw that: "You've got to have authority!" (D-Four). Some Directors need to accept and become comfortable with using their authority. Christine took some time to do this. Attending a management course after six years as Director led her to realise "there's no-one watching out for you, you just have to do it yourself", which was "quite frightening". The obverse of this was that sufficient freedom existed for Directors

to be able to “achieve anything good, if prepared to put in the effort”.

Included in the skill of partnering is acceptance of the Director’s right to decide or negotiate the most advantageous structural arrangement for the Centre (see Chapter Six). This is so that the Centre may enjoy as advantageous a position as possible for achieving its objectives. Although Ernest did not attempt to move his Centre physically from Utech, its specialist nature meant other potential hosts were limited, and this would have meant deserting good facilities that Utech had, eventually, provided. This is similar to the situation for members of Centre F regarding equipment; Centres not involved in science requiring physical facilities are easier to transfer across institutions. It can be argued, however, that Ernest was attempting to move the *attitudes* of those within Utech towards a more acceptable view of it — adjusting the partnership balance — by “fighting for the Centre and the people who are here” (Post-doctoral Fellow, Centre E). The discussion in Chapter Six shows that Directors need *proactivity* regarding structure, as part of successful partnering.

Directors usually benefit from a *modicum of financial support* by the institution in the form of premises and overheads. EFTSU monies for students supervised within the Centre are sometimes included in this support, and sometimes not. If such support is not forthcoming, the Director considers this an injustice; the hierarchy are not meeting their share of the bargain. As a further input to the partnership, Directors hold implicit expectations of receiving *collegial support* from their hierarchy for the strenuous efforts they make, not only to achieve their own personal expectations but also to enhance institutional *prestige*: “they get double the money from Directors of Centres!” said Christine, discussing her workload. In Barry’s case, when the hierarchy withdrew both financial and collegial support, making his aims appear almost impossible to achieve, the partnership was in such a state of imbalance he could no longer sustain it, and departed for a more congenial environment.

An *external focus* by the Director is essential to effective partnering. Depending on discipline and context, Directors are expected *to develop a high profile* in the academic, funding, policy and practitioner, and on occasion, general Communities to justify the financial support they receive. Their efforts in promoting their Centre’s work

by conference presentations and other media notice mean: “the Centre becomes named” (Dean, Centre C). This promotes the institution as a good university, because visibly successful people such as the Director are associated with it. Once more, good *communication skills* are required to do this.

Partnering also requires *political awareness* regarding the host university’s expectations, particularly where Directors are appointed from outside the institution. D-Two, Centre B, who “did not understand the politics” and failed to ensure sufficient academic publications, is a good example of the danger of disregarding established academic practices. Ernest certainly saw “talking to the university politicians as part of leadership too”. Christine’s habit of keeping people at various levels of the hierarchy well informed of the Centre’s achievements enabled her somewhat non-conformist Centre to gain acceptance in a much more traditional culture and to benefit, by association, from Sandstone’s reflected prestige. When expectations of the hierarchy are met, it is advantageous to *communicate* these appropriately to those who matter.

Watchful expectancy

Associated with successful grantsmanship and partnering by Directors is the ability to produce work of high ‘quality’, quality including the meeting of time and budget deadlines. In order to “set [...] the tone of the place” (SRF1, Centre B) to ensure quality control, Directors need to exercise the skill of *watchful expectancy*, a phrase used by one of Dorothy’s students in Centre D. This skill involves effective academic management of the Centre’s staff and resources, and leadership of the research programme, but in a manner that retains individual contribution and learning. Exercising watchfulness over research reports prior to release, as in “You can’t say that!” from Arthur, is part of this quality control.

All the Directors (apart from Frank, who had yet to employ anyone) saw high quality, capable staff, “the cream of the researchers”, as the most important factor in a successful Centre. Most Directors had too many other responsibilities to be heavily involved in the day-to-day research, and hence needed to *trust* the capability of their colleagues. Barry was the exception with his close involvement in his Centre’s work, and as his colleague noted, this restricted the Centre’s size. Dorothy achieved much, but in

more fully recognising and accepting her role, came to realise that Directorship was different from simple leadership-in-research, and was reducing her involvement in planned projects.

Watchful expectancy, like grantsmanship and partnering, includes a number of other skills. It includes *knowing what you want to achieve*, as in “a vision about what he ought to be doing” (SRF1, Centre B), so that some objectives and expectations exist. Proposed projects should not stray too far from the Centre’s objectives. In Centre E, some at least of Ernest’s staff wished for clearer objectives, while in Centre B, one researcher conveyed that “some direction is good” (SRF2). This also assumes, once more, the Director’s good *communication skills* for conveying these objectives in writing and speaking to staff.

Watchful expectancy requires Directors be open to influence through *leadership-in-research*, in combination with the vision. In this way they use the knowledge and expertise of colleagues — expecting and enabling them to make useful contributions to the Centre, such as Christine did in getting others to write sections of proposals: “because I know they are better at some things than I am”. As Dorothy said: “to be confident that people [...] bring things to any issue, discussion, problem, that I could not” (this leadership also involves *humility*). Simultaneously, Directors need to exercise watchfulness, to synthesise such contributions, to maintain or adjust the thrust of the research. As Christine found: “sensitivity, and an *ability to change* are important for the survival of a research Centre”, meaning watchfulness with an *external focus*, enabling such response.

The skill of watchful expectancy requires the art of being aware of colleagues’ progress without exercising supervision of too close a kind; a type of ‘freedom-with-checkpoints’. Staff in Centre A were aware of Arthur’s standards and knew they were expected to meet them, despite day to day freedom of action. *Role modelling* by the Director through “example and effort”, as expected by colleagues, includes the reciprocal expectation that colleagues will follow that example, and a Director who shows *enthusiastic support* conveys a strong expectation that colleagues will indeed succeed. Watchful expectancy is also exercised by *financial astuteness*, such as Arthur “[being]

very concerned about budgets” (RA). Sandstone, said Bernard, had introduced a more restrictive policy for Centres after some Directors proved incompetent at managing finances.

Involvement

Involvement is the skill of interacting with those outside the university who can assist the Centre with financial support, or facilitation or adoption of research results into practice, *in such a way that advantage accrues also to those people*. Arthur, Christine and Dorothy all showed this skill in ways appropriate to their individual contexts, by active participation in project advisory groups and committees, and making their results known to the lay community. Through their external focus, they took responsibility for moving their research findings further down the track so that community benefits were more likely to occur. Attracting the interest of those who could benefit, and helping them become aware of new knowledge, is analogous to arousing a ‘pull’ factor in marketing. Consumers hear about a new product or service and begin asking for it, before it is available. This provides an extra incentive for providers to see that the product or service is available. The US industry representative who suggested “We should do things the same way over here!” on seeing the implementation of Centre A’s results into the community, was presumably motivated to return home and commence lobbying for similar action. Once again, good communication skills are needed in this type of interaction, as are political awareness and tact, and financial astuteness in matters of funding.

Summary

The Major Skill concepts of Directorship: grantsmanship, partnering, watchful expectancy, and involvement, are fuzzy concepts. These Major Skill concepts are context dependent, with Directors needing to be “able to operate comfortably in the nether region between academe and industry” (Commentator Two). Synergistically, the Major Skills are *more than* just the general, personal skills mentioned in the discussion above; political awareness, communication skills, financial astuteness and an external focus. Because of their more general nature, these personal skills underlying the Major Skills are advantageous in many different employment and other situations.

Because of the flexible nature of the Major Skills, Directors may exercise them in many different ways, as part of enacting their role, mediated by their individual Key Characteristics. A Director's vision for the Centre, and his or her personal Key Characteristic, shape the Director's interpretation of the role.

Discussion: Directorship as a process

Directorship is an ongoing process, a partnership between the Director and the host institution, combining the Director's ability and achievement with the backing of the university. From this partnership the university hierarchy expects further visible achievement by the Director, enhancing institutional prestige by association. In entering such a partnership the Director hopes to achieve personal aims. Some of these aims may be altruistic, aimed at improvements in society, while others may be more attuned to individual career goals.

Directors without prior management experience usually learn by experience, copying good or poor role models in experimental fashion. To fully interpret their role they need to recognise and accept the extent of their authority. After accepting the authority accruing to their position, and a share of the responsibility for making *partnering* succeed, Directors need to manage and lead their Centres, using Skills such as *grantsmanship* and *watchful expectancy*. Their activities are more likely to succeed with good understanding of, and *involvement* in, their particular external Communities. Political awareness, good communication skills, financial astuteness, and an external focus are all needed in relating to each of their Communities of Interest.

In addition to a Director with some capability in the Major Skills there must be a real or potential demand for the work of the Centre, for it to survive. The funding environment is unpredictable and highly competitive. Inconsistency of funding is the major frustration of these Directors, because of the ensuing difficulty in planning, and in ensuring good staff of continued employment. Consistent collegial support from their immediate superiors in the hierarchy helps to sustain Directors in their efforts.

The extent of the Directors' intellectual, social and emotional input to the partnership means that, "the commitment of the university does not equal the dedication of the individual" (SRF, Centre B). Directors have more at stake than do the university

hierarchy, with a number of such partnerships. Because of the strong desire to achieve personal aims, failure to do so affects the Director much more than it does the institutional partner. In this study, should the institutional environment become so restrictive that achieving personal aims is unlikely, Directors attempted to change their existing environment to their Centre's advantage, or to move to an environment better suited to achieving these aims.

It may be assumed that the outcomes Directors themselves desire are those which motivate them most strongly. These aims may include continuing research involvement, altruistic consequences and personal career aims (see above). I argue that Directors enact their role through exercising the Skills of Directorship, outlined above, to achieve their personal aims, embodied in their Centre. Their interpretation of the way in which they should exercise these Skills, (without identifying or naming them as such), may or may not lead to realisation of their vision. Most Directors in this study saw their Directorship as a means to an end, done to enable the research: "the job is there and you do it" (Christine), rather than as a position sought for its intrinsically satisfying nature.

This 'end', the rationale for undertaking the research, and its outputs and outcomes, give *meaning* and purpose to the lives of the Directors and their staff. I argue that their situation compares well with Wheatley's metaphor of meaning as "a strange attractor", in her discussion of the scientific aspects of chaos and turbulence related to personal meaning for individuals within organisations (Wheatley, 1992, pp.133-137).

Meaning or purpose serves as a point of reference. As long as we keep purpose in focus in both our organizational and private lives, we are able to wander through the realms of chaos, [...]. When a meaning attractor is in place in an organization, employees can be trusted to move freely, drawn in many directions by their energy and creativity. There is no need to insist, through regimentation or supervision, that any two individuals act in precisely the same way. We know they will be affected and shaped by the attractor, their behavior never going out of bounds. [...] We believe that little else is required except the cohering presence of a purpose, which gives people the capacity for self-reference (Wheatley, p.136).

This quote, I suggest has strong relevance for research Centre Directors. Staff who do not share the same meaning attractor as the Director and others in a Centre will be more likely to leave, as in the departure of Dr Y and his staff after Barry's arrival in Centre B. Staff who do share the meaning attractor and can personalise and subscribe to it by

contributions, will be more likely to stay, as in Centre D, when Dorothy was absent overseas.

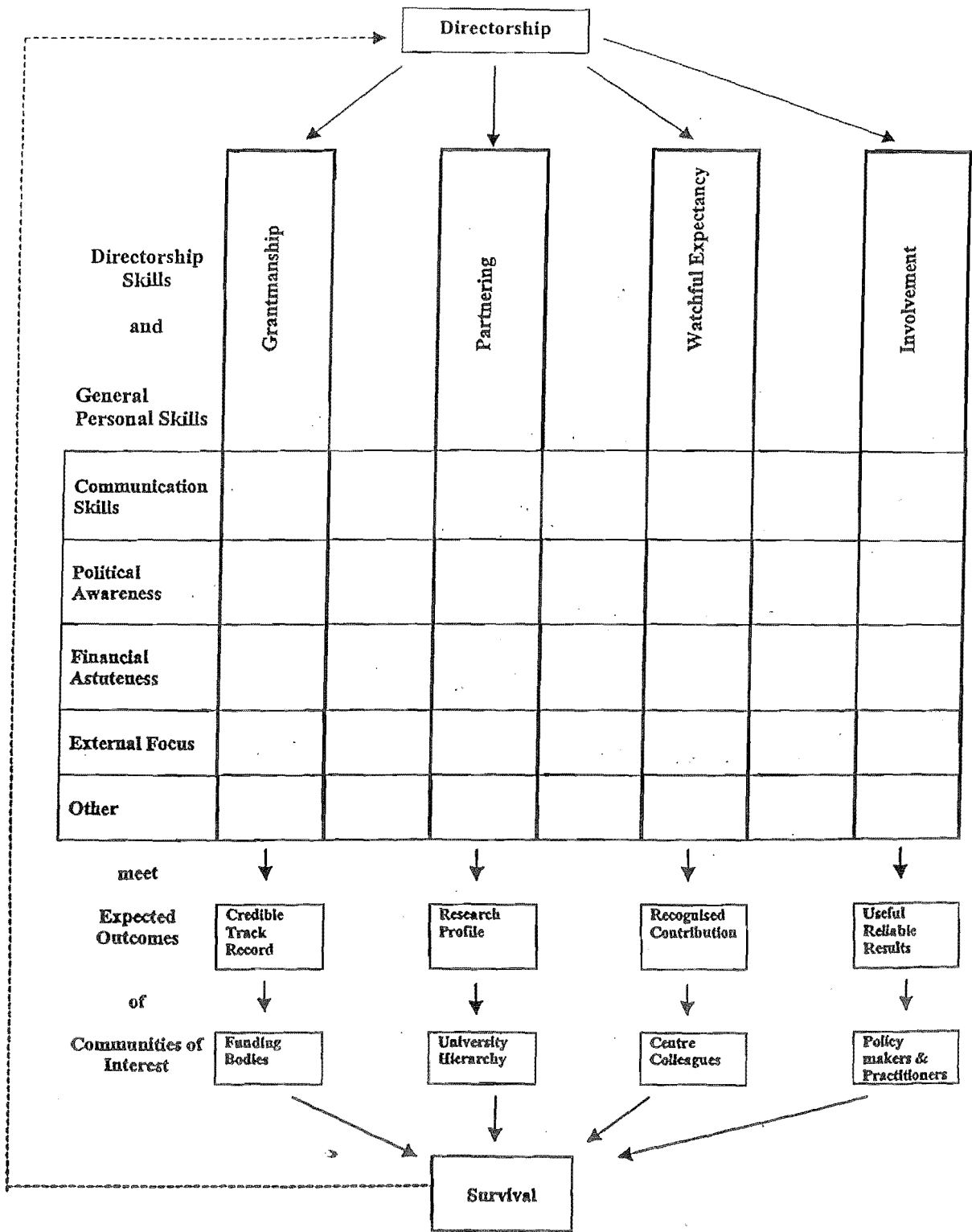
The extent to which the Major Skills are called into play is dependent on changes in the Centre's environment, such as changes of personnel in the university hierarchy, current levels of confidence in a Centre as perceived by funding bodies, and shifts in government funding policy. Directors are also vulnerable to chance and luck. Colleagues and staff within the Centre are the most important Community, because he or she relies on them to achieve quality outputs, being unable to conduct all the research personally.

Success

Success for Centre Directors in this study was widely interpreted as *survival* of the Centre. As Dorothy said succinctly: "keeping the show on the road". The uncertainties perceived to be associated with living on soft money from grants and contracts were always present in the background as the general uncertainty in life.

Figure Two is a diagram of the Major Skills and general personal skills and their inter-relationships, representing the interpretive theory I have argued in this chapter, with a focus on the exercise of Directorship. Directors use these Major Skills, underlaid by the general personal skills, in meeting the expected outcomes of their Communities of Interest.

Figure Two: Skill factors of Directors



Generalising from case studies

Social researchers recognise that their findings are limited in time and space, hence generalising from their findings beyond a particular context at a particular time is “a matter of judgment” (Blaikie, 2000, p.11). In this thesis the study design consisted of case studies of seven Directors in six research Centres in five different universities. The research in these Centres is conducted in different disciplines. Although my selection of Centres is in no way a representative sample as attempted by more quantitative researchers, this diversity provides a restrained claim for ‘face generalizability’ of the findings (Maxwell, 1996), to Directors of other Centres in Australian universities, where the contexts are similar. Face generalizability means there is “no obvious reason not to believe that the results apply more generally” (Maxwell, p.97). Yin has argued for “analytic generalization” from as little as one case. He maintains that case studies, like experiments, are generalisable to theoretical propositions and not to populations or universes (Yin, 1989). Because he considers theory as a preliminary to data collection and analysis, however, his approach is unsuited to interpretive work as in this thesis.

Blaikie (2000) argues that generalisability in qualitative research can be enhanced by studying the same issue in different research sites, using similar methods of data collection and analysis, which I do in this study. Certainly, my second stage cases were selected more instrumentally than those of the first stage, with the intention of further examining the issues arising from the first stage, on the one hand, while on the other, remaining open to their intrinsic value as a further learning experience. Comparison across all cases in both stages enabled me to observe a number of issues relevant to these Directors, and several themes common to their experiences in the role (see Chapter Six). While I studied only seven cases (with supplementary comments from another four previous Directors), and must restrict the findings to these cases, I leave the findings open to further development and debate, on the basis of *fuzzy generalisation*.

Bassey, writing from a background of case study in education, proposes the idea of fuzzy generalisation in social science research (Bassey, 1999). This, he argues, arises from “studies of singularities and typically claims that *it is possible, or likely, or unlikely that* what was found in the singularity will be found in similar situations elsewhere: it is

a qualitative measure” (p.11). A fuzzy generalisation, in Bassey’s view, is a kind of statement making no absolute claim to knowledge, and hedging its claim with uncertainties. It is the kind of qualified general statement such as:

“In *some* cases it *may be* found that”

rather than,

“in *this* case, it *has been* found that” (p.11).

I argue that fuzzy generalisation appears well suited to findings based on fuzzy concepts. As the idea of fuzzy generalisation is recently developed, the following extract provides understanding of Bassey’s rationale.

‘Do *y* instead of *x* and your pupils will learn more.’ That is pithy and may be memorable. But left like that it is contrary to the truth ethic of research, for it omits the details of context and circumstance which give it meaning and it has a certainty and absoluteness which we know is never the case.

Suppose that instead the researcher said to teachers ‘Do *y* instead of *x* and your pupils *may* learn more.’ This is no minor change. It is not just introducing an element of uncertainty. It is not an admission of frailty in the way that the research was conducted. It is a firm reminder that there are many variables which determine whether learning takes place. And it is an invitation [...] to enter into discourse about it: to read the evidence in support of this statement, to discuss it with anyone else who engages in *x*, to reflect on the issues, to test out [...] the efficacy of *y* and to report the outcomes to whatever group will listen.

I call these general statements with built-in uncertainty ‘fuzzy generalizations’. With the scientific generalization there are no exceptions - and indeed in science if any are found then the statement is abandoned or revised to accommodate the new evidence. But in the use of the adjective ‘fuzzy’ the likelihood of there being exceptions is clearly recognized and this seems an appropriate concept for research in areas like education where human complexity is paramount.

(Bassey, 1999, pp.51-52)

As a fuzzy generalisation, therefore, I suggest that the expected outcomes, and the interpretive theory of Skills of Directorship, developed in this thesis, *may* have relevance to those in university research Centres in similar situations beyond those studied.

Comparison with existing theory and literature

This thesis examines university research Centre Directors in Australia. It aimed to add to knowledge of Directorship, a holistic concept. The literature directly relating to research Directors is sparse, as noted in Chapter Two, and in this kind of exploratory work, limited opportunity exists for comparison with more mature theory developed by others. The two theoretical strands most relevant to the findings of this study are resource dependence theory (Pfeffer & Salancik, 1978), and, to the idea of leadership-in-research, the relational leadership theory of Hosking and Morley (1990).

Resource development theory

Slaughter and Leslie (1997), in their macro study of changing patterns of academic work in four nations: the United States, the United Kingdom, Canada, and Australia, use resource dependence theory, among others, to assist their understanding. However their interaction with Directors of Australian research Centres focussed on those engaged in technology transfer and commercialisation, selected for generating external earnings above a certain figure (p.3). Resource dependence theory argues that because organisations depend on resources obtained from outside themselves, the suppliers of those resources have power over the organisations. “Survival of the organization is partially explained by the ability to cope with environmental contingencies; negotiating exchanges to ensure the continuation of needed resources is the focus of much organizational action” (Pfeffer & Salancik, 1978, p.258). Further, to the extent that actors in the social environment of the organisation control critical resources, they influence actions in the organisations. This is the ‘social control of organisations’ (p.259).

Australian government policy, upon the introduction of the Unified National System of higher education, indicated to institutions that resources should be obtained from other than direct government grants. This is the type of action described as ‘steering from a distance’ described by Marginson (1997c). In my study, the quest for funding, and the maintenance of academic objectivity without undue funder influence (on occasion), were found to be major issues of concern for Directors. This study looked at the effects of that policy at the level of the laboratory and social research team. The theory of

resource dependence has relevance at the level of university Centres as well as at institutional level. The partnerships between Centre Directors and university hierarchy are institutional attempts to attract more, and more secure, resources. While some of the Directors in this study maintained continuing relationships with those outside the university who could implement their results, commercialisation was not an aspect of major concern for most, because their research was often on issues for which responsibility was held by the public sector. In Frank's case in Centre F, a different situation existed, with Frank and his colleagues hoping to build on this commercialisation to bring further success, but Frank sought the extra funding from commercialisation to further his research programme. Barry hoped to bring his developmental work to a conclusion so it would be available to others, but he was as eager to see its benefits flowing through into society as to benefit from its commercial adoption.

Relational leadership theory

Despite prior work indicating difference between leaders and managers (e.g. Kotter, 1990; Zaleznik, 1977), researchers studying leadership and management have often failed to distinguish between these two concepts, although a recent survey of 760 New Zealand and Australian executives showed them identifying the two concepts as separate functions (Blyde & Bebb, 1995). Not wishing to maintain the confusion between leadership and management in this study, I distinguished leadership-in-research, as I termed it (see Chapter Six), separately from management, with reference to the work of Rost (1991, 1997). Rost subscribes to the relational theory of leadership, and his definition is:

Leadership is an influence relationship among leaders and collaborators who intend real changes that reflect their mutual purposes (1997, p.11).

Leadership as defined above can be seen firstly as a multi-directional group relationship, with anyone able to be either a leader or a follower. Secondly, the fact of influence means that coercive behaviours are not leadership. Coercive behaviours constitute a relationship of authority or power. Rost describes authority as "a contractual (written, spoken or implied) relationship wherein people accept superordinate or subordinate responsibilities in an organization. Power is a relationship wherein certain people control

other people by rewards and/or punishments. Both authority and power relationships can be coercive, although they need not be” (p.105-6). In leadership as defined above, “followers may be leaders for a while, and leaders may be followers for a while”, which permits changing places without changing organisational positions (Rost, p.109).

The relationship emerging in this study, which I have called ‘leadership-in-research’, fits well with Rost’s construction of leadership, which by definition is *relational*. Leadership-in-research, as I found it, is a function of Directors in moving the research forward, a specific feature of good research team work. To have excluded it would have meant a partial representation of Directorship. Hosking and Morley (1991), working separately from Rost, have developed a theory of relational leadership process, grounded in helping, with which they oppose the entitative view of leaders and followers, separate from their context. These authors develop their argument around the skills of “networking, negotiating and enabling, as the vehicles for leadership” (p.250).

My study did not set out to examine the concept of leadership as such, but Directorship as an all-encompassing function, and I found more variety in Directors’ skill levels for managing their Centres, as distinct from leading them. This was because their research involvement provided meaning and direction for their leadership-in-research function. However leadership-in-research, as I found it, certainly includes negotiating and enabling, two of Hosking’s and Morley’s skills. While networking in its more usual sense was advantageous for Directors in their local and external contexts, outside the Centres, the development of a vibrant climate inside a Centre may be seen as internal networking between staff, allowed their work to include ideas or suggestions gathered informally through day to day interaction. My Major Skills are context specific to Directors of research Centres, while those of Hosking and Morley are a broader conceptualisation of more general leadership. While skill development emerged in this thesis as central for Directors’ enactment, my focus was not on leadership alone, but on Directorship in its entirety, a broader concept.

Conclusion

Chapter Seven has presented the theory developed in this thesis. The place and limits of theory in interpretive work are discussed, prior to detail of the theory I develop.

As a background to the theory, concepts were developed for the outcomes expected of the Director, both individually and by each Community of Interest. The complexity of the Director's role is increased by the often conflicting expectations associated with the traditional values of academia, in comparison with the more commercially oriented expectations of the world outside.

In building interpretive theory in answer my research question: *How do university research Centre Directors interpret and enact their role?* I have argued that Directors do so by developing and exercising *craft skills of Directorship*. These Major Skills are conceptualised as meeting the varied expectations of those in each Community of Interest. Underlying each of these Major craft skills are a number of other more general personal skills. Directors develop the craft skills, attuned to their context, by building on the more general, underlying personal skills, to enable them to meet their Communities' expectations, and their own, to a greater or lesser extent. The way in which they do this is influenced by the differences in their specific university contexts, funding and disciplinary contexts, and their individual history, experiences and personality. Relationships to the extant theories of resource dependence (Pfeffer & Salancik, 1978) and relational leadership (Hosking & Morley, 1991) are also discussed.

In Chapter Eight I discuss the limitations of the research, propose some practical implications of the findings for use by institutional hierarchy in assisting the Directors to enact their role, and outline directions for future research building on this study.

CHAPTER EIGHT

LIMITATIONS, IMPLICATIONS AND FUTURE RESEARCH

This study has used a qualitative case study approach to examine the previously unresearched role of the university research Centre Director. I worked with seven Directors in six Australian university Centres to contribute to understanding of how those in this relatively new layer of university management interpret and enact their role. Chapter Six presents the issues arising from the cross-case analysis and Chapter Seven presents the interpretive theory developed in this thesis.

In this Chapter I recognise the limitations of the research, raise some practical implications of the findings for use by institutional hierarchy in assisting the Directors to enact their role, and outline directions for future research, building on this study.

Limitations

This study was designed to be feasible for a researcher resident in another country from the research participants, which meant that, despite modern communications such as fax machines and electronic mail, it was less easy for me to reach my research participants for checks or confirmation of specific points than would presumably have been the case if I had been living closer to the location of the Centres in Australia. This may have meant a slight loss of richness in the data. Alternatively, however, if I had been more present and persistent, some may have formally withdrawn from the study due to the extreme pressure on their time and the variety of other demands made upon them.

During the analysis, a number of times I experienced frustration that the data I possessed, although collected from an elite group with extensive vocabularies and well practised in oral communication, was insufficiently 'ethnographic'. Although by the end of my visits to the Centres I was familiar with their layout, their culture and many people working there, it is possible that had I been able to extend these visits, my analysis, in contrast to my data collection, might have been conducted more speedily because my awareness of the major issues was more speedy. However I do not consider this limitation to be too great, because as Ragin says: "Typically, qualitative researchers

struggle simply to come to terms with their cases” (1994, p.76), so this would seem to be a characteristic of the research approach, as much as of the researcher.

As the act of analysis is an interpretation, and hence a selective rendering (Fielding & Fielding, 1986), the interpretation of another researcher bringing a different set of attitudes, knowledges and experiences to a similar study might develop a different interpretation. The usual limitations in regard to generalisation of case study findings of course apply. A fuzzy generalisation that what I found *may* apply in similar contexts is all I can put forward.

Practical implications

Some practical suggestions arise from the study. Firstly, the huge pressures on those Directors heavily involved with university matters not directly relevant to their Centres, are avoidable. University hierarchy who genuinely wish to support their research Directors should permit them to place high priority on attaining the objectives of their Centres, unencumbered by such additional responsibilities as Head of Department, or the demands of extensive intra-institutional committee work. If the expectation of hierarchy for research Centre Directors is for them to maintain institutional prestige, the Directors’ ability to do so will usually be much enhanced by freedom to concentrate their efforts on maintaining and developing their Centres.

Secondly, the proliferation of Centres, some of which are notably more successful than others, incurs extra expense for institutions, adds to the unwieldiness of their internal management, and generates disappointment for the Directors and staff who publicly fail to meet the expected outcomes. It would appear that fewer, better supported, research Centres would be a more appropriate use of scarce institutional resources. The interpretation of ‘selectivity’ appeared fairly broad in the case of some Centres in this study.

Thirdly, institutional hierarchy would be well advised to offer collegial support to their research Directors through a variety of ways that appeared little used during my visits. While Directors, like many university academics, dislike compulsory ‘training’, there are other ways in which they could benefit from sharing experience across disciplines. Some of the ways in which this suggestion might be implemented include:

- mentoring by more experienced, successful Directors not in direct competition for the same funds;
- following the example of Utech by holding common interest discussion sessions for their Directors, even a few times annually;
- providing more explicit job descriptions, which might seem anathema to those socialised to academic freedom, but which would provide opportunities for Directors to assess where their own skills need strengthening; and
- actively encouraging new Directors to participate in ‘executive forums’ conducted by high profile successful Directors or those in research management positions.

Future research

Other research that might be developed from this study includes both more in-depth ethnographic type studies of Directors widely acclaimed as well exemplifying their craft, to reveal the fine detail of their success, or otherwise, in exercising the Major Skills of Directorship. While this was not possible in this exploratory study, such work could lead to greater insight regarding the Directors’ work. Additionally, more quantitatively oriented research could be undertaken, aiming to reach a larger number of Directors in other Australian states, in New Zealand and in other countries, to learn more about university research Centre management, and to trace the extent of influence external factors have on the conduct of the research undertaken in academia. This could lead to development of further theory with possible relationships to extant theory. The work in this thesis on comparative research productivity, for example (see Chapter Four), could also be extended to gain a better idea of the relative productivity of Centres compared with traditional Departments, and the reasons for differences.

Conclusion

To close this thesis, I present Vignette 7.1, an extract from the interview with one of the Research Fellows. In this extract, the researcher expresses her felt need for collegial support in making a recognised contribution, explicates the weight of responsibility placed on Directors of Centres, and recognises that, “generosity” (as Barry, D-Two, Centre B, remembered in his former leader), is vital to success. Generosity is in one sense an opposing factor to the individualism developed by traditional academic socialisation. I consider this Vignette beautifully encapsulates the personalised ideal of the Director, while including the inescapable monetary connection.

Vignette 7.1

Interviewer: *Talking about research leadership in general, what do you consider gives a research leader credibility?*

Researcher: Generosity. Like they have that time for others, they're generous in their ability to ... share their knowledge with others, to foster others on the way. That they're in a cycle and seeing what's coming up in the future, and proactive in moving towards opportunities. I guess, their ability to act as a mentor ... and a friend ... and a strong confident ally. And also, I think there's an element of confidentiality; they are respectful enough to keep your ideas, aspirations and disappointments that you share with a strong leader, to themselves. There's a real trust. And I think good role modelling, the fact that they're always there - they never ever let you down, sort of thing. They're always there to back you.

Interviewer: *Do you think that would be draining on people?*

Researcher: Oh of course it is, it must be. He'd want to be paid millions of dollars, wouldn't he?

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APPENDIX ONE

PROTOCOL FOR PILOT CASE STUDY

Selection of Research Centre

1. Multi-disciplinary *75% are (CRP. W'gong survey)*
 Not KCTR or SPC or CRC
 Preferably in existence for 7 or 8 years
 Possibly with change of director
 Staff still available to interview (for selected project)
 Accessible
 Good record of obtaining resources
 e.g. maintained existence for number of years
 survived formal reviews
 Publication record?

Background

2. University policy and/or guidelines on research centres **From**
 / Res.Mgmt Plan **Res. Office**
 Unofficial attitude to centres in general - **Research office**
 Centre annual reports, if available **Centre, Library**
 Centre strategic plan, if exists **Centre**
 Other useful documentation e.g. Centre objectives
 if no strategic plan **Centre**
 Teaching undertaken, if any - percentage **Staff**
 Advisory Committee/Board : membership, internal/external, **Annual reports,**
 changes to Chair and members **minutes**
 From annual reports, trends in funding (to do trend line), staff numbers,
 publication/report list.

Action

3. Data on two completed research projects (one worked well, one did not).
Maybe Proposal
 Minutes of meetings held about project
 Interview with Director
 Interview with project coordinator/leader
 Interviews with staff working on the project
 Decision making process
 Progress reports
 Outputs

Number of other current projects
 Multi/cross/single disciplinary nature
 How work determined
 Grant procedures
 Time lines

Relationship(s) with Department/School/Faculty/Other Res. centres

4. Reporting structure **Ann. Report**
 Director of Chairman : Faculty Dean; DVC; VC
 Funding
 Internal
 External
 Contestable
 Entrepreneurial

Centre Location and Staffing

5. Separate premises?
 Location of staff offices. All in one place or separated?
 Full time/part time staff
 Tenured/contract term staff
 Staff turnover
 Promotion/tenure/salary decisions location (Centre/Dept) **Director**
 Personnel policy for centre staff unconnected with department
 Specific rank required (e.g. professor) for Principal Investigator status
 If part time (or short term seconded) where is primary allegiance?

Relationships external to the university

6. Professional groups
 Industry/business
 Sponsors/funders
 Non-funders
 Research centres in other universities
 Formal
 Informal
 Research groups outside universities
 Formal
 Informal



APPENDIX TWO

26 September 1995

Ms M E Zajkowski
C/- Dr S Dakin
Department of Management
UNIVERSITY OF CANTERBURY

Dear Ms Zajkowski

The Human Ethics Committee has considered and approved your research proposal: **"Leadership and Productivity in Australian University Research Centres"**. However, note that some committee members believe that written consent should be obtained, but the majority are happy with verbal consent, and some think that the project does not require review by the Human Ethics Committee as it involves interviews with professional persons in the areas of their competence.

The Committee also returns three copies of your application.

Yours sincerely

J A Cockle (Miss)
Secretary

APPENDIX THREE

Research Project on University Research Centres

This research project is concerned with how Directors of university research centres enact their roles as leaders. It is based in management theory and is a largely qualitative study using the case study method, aiming at explanation and understanding of “how the work is done”. The study has been approved by the appropriate ethical committees of the University of Canterbury and The Open Polytechnic of New Zealand, the institutions where the researchers are situated.

Interviews will be recorded, with permission, and all transcripts returned to interviewees for them to check, verify and/or adjust for increased explanatory purposes. Any publication resulting from the project will maintain confidentiality in that centres, their location and staff will not be named.

Mary E Zajkowski
Senior Lecturer, Faculty of Commerce

email: zajmar@topnz.ac.nz
fax: 64-4-560-5656
tel: 64-4-570-5538

CONSENT FORM (if wished)

I have read the description of the above-named project. On this basis I agree to participate in the project, with the understanding that I may at any time withdraw.

Signed..... Date.....

APPENDIX FOUR

Interview schedule, first stage: Director

1. Could you tell me about your career experience before taking up this position as Director to the Centre?

Probe for : preferred environment
any specific management training (and reaction to this as a learning experience)

2. When you (i) took up the Director's position,
OR: (ii) came to work in the Centre initially
(for D's who were previously Research Fellows),

How would you describe the difference between working in that industrial/commercial/ organisation / academic department, and working here?

How would you contrast the research norms here with those in your previous situation?

3. Can we look at your role as director now?

Criteria of success: As Director, how do you think you are judged? By Board of Mgmt; university, major sponsors.

What constitutes success for you in this role? How would you like to be remembered for your tenure as Director?

Goals: What are your main aspirations for the Centre; what do you want it to achieve in your term of office?

Values and norms: As a group, what shared beliefs do you have about research? (Could be topics, methodologies, reporting style ...)

Could you identify a set of values that you and your staff adhere to within the Centre?

How well do you think these values "fit" with the values of the university?

How do they compare with the values in your previous employment?

Modelling performance: Would you please describe for me the factors which, in your view, are most likely to contribute to the success of the Centre?

Leadership: How would you describe your style of leadership?

What style of leadership do you think your staff *want* you to exhibit?

Have you changed your style over the time you have been here? Why?

Norms: What is your role in trying to create a set of shared values/norms within the Centre?

How do you do this? How successful have you been?

From your experience, where and in what situation did you learn those things that are most useful to you as Director?

4. I understand you are still **active as a researcher** as well as undertaking the Director's role. Do you think it important that the Director of a research Centre is an active researcher? Why?

How do you balance the different demands of administration/management with those of active research?

5. **Getting the work of the Centre done.**

Goals How do you get staff to support and agree to the Centre's goals?
What do you celebrate within the Centre and how?

Expertise How do you go about getting the best people to work here, and help them develop?

Probe for action taken on personal and professional development of staff.

When people become project leaders, do they get any training for the role?
When new staff are employed, how do they learn about the expected norms?

Roles: How do you divide up the work of the Centre?
Do you have overlapping roles and responsibilities?
Does everyone know exactly what they have to do?
How much freedom do staff have in choice of work?

Communication How do you communicate with one another?

Does everyone know what is going on?
How do staff know whether they are doing a good job?

Conflict: How would you describe the relationships between staff?

How is conflict handled? Can we look at an example?

Control: What control information and mechanisms do you have over the work done in the Centre? Reports? Meetings?

If any member of staff is not performing up to expectations, how do you deal with it? Can you give an example?

Decision making: How are decisions made? For example, to buy a new piece of capital equipment? To decide to tender for a new contract? To appoint new staff? To decide who gets which offices or resources?

Would you describe your decision making processes as democratic?

Does your Centre have separate premises?

Location of staff offices. All in one place or separated?

Full time/part time staff

Tenured/contract term staff

Staff turnover

Promotion/tenure/salary decisions location (Centre/Dept)

Personnel policy for Centre staff unconnected with department

Specific rank required (e.g. professor) for Principal Investigator status

If part time (or short term seconded) where is primary allegiance?

What do you do to support and encourage your staff?

How do you make sure that people are treated fairly, e.g. in the acquisition of resources, promotions etc.?

6. **Projects: Could we now explore a couple of projects in some detail?**

First, could you select a completed project which you would judge to be a resounding success - a project that exceeded your expectations.

- * Please briefly describe the project, its objectives, client and staff involved
- * What led you to nominate it as a success?
- * What were the factors which made it successful?
- * How would you describe your role in its success?

Second, select a project which was less successful; perhaps one which was abandoned, or which has never been completed, or was late, or about which the client was unhappy.

- * Please briefly describe the project, its objectives, client and staff involved
- * What led you to nominate it as relatively less successful?
- * What were the factors which made it so?
- * How would you describe your role in it?

7. Publications and other outputs

How is authorship decided?

Have there ever been problems in this area, with recognition?

8. What about entrepreneurial aspects?

Could you describe the external environment in which the Centre operates?

Is there a shared responsibility for attracting new research grants and contracts?

Does the Advisory Board play a role here? Could we follow through a specific example?

How much influence do sponsors exert? The Annual Report mentions a [particular type of] research program. How is this negotiated?

What kind of record does the Centre have of success in competitive research grants?

And in gaining contracts?

9. During your time as Director, how have you attempted to bring about change?

Could we take one specific example and follow this through in detail?

If you were repeating this exercise, is there anything you would do differently?

How much input is there from members of the Advisory Board, the Chairman in particular?

10. Could you describe your major frustrations over the past 2 years?

11. What would you identify as your major achievements?

Interview schedule, first stage: Research Fellows

1. Could you tell me about your work experience before coming to the Centre?

(To enable discipline to be identified.)

Which of these jobs did you enjoy most? Why?

How would you describe the difference between working in that industrial/ commercial/ organisation / academic department, and working here?

How would you contrast the research norms here with those in your previous situation?

2. Getting the work of the Centre done

Which of the Centre's projects are you involved in at present?

Can you tell me about the team for this(these) projects - who are they and what does each person, including you, do?

How do you feel about working in a team situation such as this?

How much influence do you have over decisions about the work that you do?

Who else has influence over the work?

3. Values and norms: As a group, what shared beliefs do you have here in the Centre about research?

(Could be topics, methodologies, reporting style ...)

Could you identify a set of values that you and your colleagues adhere to within the Centre?

How well do you think these values "fit" with the values of the university?

How do they compare with the values in your previous employment?

4. Work responsibilities

Do you agree with the way the work responsibilities are divided up? Do people have overlapping roles? Does everyone know exactly what they have to do?

When new staff members are employed, how do they learn about the norms expected here?

When you started working here how easy did you find it to fit in?

When staff become project leaders, do they get any training for the role?

Are there any other opportunities for staff to develop or update their knowledge and skills?

What would a researcher need to do to progress in a career in a Centre such as this?

Sometimes there will be conflict between members of staff.

Can we take one example of such a conflict and look at how it was solved?

What is celebrated in the Centre? How is this done?

Communication How do you all communicate with one another?

Does everyone know what is going on?

How do staff know whether they are doing a good job?

If any member of staff is not performing up to expectations, how in your experience is this dealt with?

Decision making: How are decisions made? e.g. to buy a new piece of capital equipment? To decide to tender for a new contract? to appoint new staff?

To decide who gets which offices or resources?

Would you describe the decision making processes here as democratic?

5. **The Centre has some official objectives. How important are these felt to be at a day to day operating level?** (Check whether they can remember them.)

When the objectives are changed or redeveloped, do staff have an opportunity to discuss or comment on the changes?

6. **At what level are proposals for new projects or submissions for grants developed?**

- 7 **Projects: Could we now explore a couple of projects in some detail?**

First, could you select a completed project in which you were involved which you would judge to be a resounding success - a project that exceeded everyone's expectations.

- * Please briefly describe the project, its objectives, client and staff involved
- * What were the successful outcomes?
- * What were the factors which made it a success?
- * How would you describe your role in its success?

Second, select a project which was less successful; perhaps one which was abandoned, or which has never been completed, or was late, or about which the client was unhappy.

- * Please briefly describe the project, its objectives, client and staff involved
- * Why could it be called less successful?
- * What were the factors which made it so?
- * How would you describe your role in it?

8. **Publications and other outputs**

How is authorship decided?

Have there ever been problems in this area, with recognition?

9. **Apart from salary and the (temporary) security of contract employment, what do you see as rewarding about your job here?**
10. **How would you describe the stress level in the Centre? Do you think this is the same for all staff? Why?**
11. **Could we talk about research leadership?** What do you consider gives a research leader credibility?
What do you see as the strengths of the current Director?
How would you like him/her to change to help you do your work more effectively?
12. **Can you tell me how a particular change (choose an example) was implemented here?**
Has the change been adopted by staff?
If you were responsible for implementing a similar kind of change, how would you go about it?

APPENDIX SIX

CODING SCHEDULE: PILOT CENTRES v.3

- | | | |
|----|---------------------------|--|
| 1. | Resources | academic (people)
funding <ul style="list-style-type: none"> university sponsors contracts/grants other sources e.g. journal accountability |
| 2. | Director behaviour | <ul style="list-style-type: none"> own research interpret role enact role effect on staff communication recruitment control <ul style="list-style-type: none"> - work output - funding - staff participative governance <ul style="list-style-type: none"> - decision making - other achievements satisfactions training for role expectations personality style credibility aspects |
| 3. | Within Centre | pressure <ul style="list-style-type: none"> meet budget meet deadline time "expectations of activity" contract employment publish standard of work outside interference (e.g. faculty) |

quality	standard of work	
	reputation	Centre Director other
	staff attributes	
	academic freedom	
clash	in-Centre	
	in/outside Centre	
	mechanisms to deal with	
staff	rewards (job satisfaction)	
	research results	published contract reports other
	productivity	
	staff development	
	turnover	Directors research assistants (Ras) other staff
	staff appraisal	
	initiative	
	coaching	by Director by others
culture	shared values	in-Centre
	building the culture	vis a vis university
climate	social interaction	celebrations to get work done (teams)
	communication	oral written
	change	sources effects
strategy	clear goals	
	contract employment	
	maintain funding	
	increase rewards	
	independence	

4. **History**

5. **Environment**

external

commercial
political
funding
academic

internal (univ.) Advisory Board/Board of Management

uni. admin. hierarchy

policy

faculty

other departments

DEFINITIONS OF CODES FOR PILOT CENTRES ANALYSIS

1. **Resources** **academic** staff, libraries, computers, secretarial, or other tangible resources available in a univ. environment
 funding **university** money distributed from within the uni.
 sponsors outside providers of money or resources not tied to finite specific research projects
 contracts/grants money for specific projects gained by competing with other researchers; contracts or non-profit based
 other sources e.g. journal money from sales of journal subscriptions or other sources not covered above
 accountability need to show monies used for the purpose intended

- 2.. **Director behaviour** **own research**
 interpret role the way a D understands or thinks about the way s/he should act in her/his position
 enact role the way a D goes about doing the job
 effect on staff effect on staff of ways in which D behaves
 communication any communication by D
 recruitment way in which new staff are selected
 control -work output way D influences completion of research output
 -funding D's strategies to gain or control funds
 -staff other than regarding work output
 participative governance whether decision making shared with staff (may be by formal vote, consensus or opinion seeking)
 achievements goals or other factors seen as achieved
 frustrations what was not able to be achieved although wished
 training for role specific management training or experience
 expectations what is expected of staff or likelihood of other events
 personality extroversion/introversion, way of relating to or handling people
 style how D, or staff, describe D's way of approaching the job
 credibility aspects (of research leadership) factors influencing belief in or respect for a researcher
 vision ability to picture future achievable improvements

3. **Within Centre**
 pressure **meet budget** keep within project budget limits on spending
 meet deadline get work done on time
 time use of, shortage of
 expectations of activity amount of work expected as a "norm"

	contract employment	effect of limited term employment
	publish	make research results available to professional or academic audience
	standard of work	effect on work of shortage of time, funds etc
	outside interference (e.g. faculty)	Dean (or equiv.) or uni. demands for information, funding contribution etc.; or decisions that result in an unforeseen change in centre operations
quality	standard of work	level of work expected to be achieved
	reputation	Centre Director other
	staff attributes	characteristics/qual'ns/experience of staff
	academic freedom	right to take an objective approach to research investigations without fear of censure of results
clash	in-Centre	difference or conflict between staff,
	in/outside Centre	difference or conflict between centre and faculty, university or outside sponsor/other
	mechanisms to deal with	ways in which conflicts are resolved
staff	rewards (job satisfaction)	ways staff receive recognition for their work
	research results : published	
		: contract reports
		: other
	productivity	the amount of research outputs achieved
	staff development	opportunity for staff to improve their skills knowledge etc
	turnover	Directors res. assistants (RA's) other staff
	staff appraisal	formal uni.interview procedure for staff assessment
	initiative	spontaneous individual action to achieve results
	coaching	by Director way of helping staff improve performance by others “
culture	shared values	:in-Centre fundamental beliefs held in common among centre staff vis a vis university compared with traditional uni values
	building the culture	specific unifying actions taken to increase sense of difference from surrounding environments

climate	social interaction: celebrations cause, way of doing work organisation the patterns of how work is usually done, what the atmosphere is like communication oral written change sources what causes change effects how staff feel about change
strategy	clear goals written(usually) objectives to be attained by Centre as a unit or staff individually contract employment use as a productivity tool maintain funding ways to maintain/increase funds increase rewards ways to increase job satisfaction of staff independence use of neutral stance for gain
4. History	earlier events in life of Centre
5. Environment	
external	commercial current or former business factors, attitudes political “ political tensions, influences funding importance/likelihood of gaining external funding academic intellectual climate outside the centre, academic competition
internal (univ.) Advisory Board/Board of Management	group of people advising centre
uni. admin.	hierarchy Dean, vice-chancellor, actions, attitudes policy uni-wide policies that impact on centre
faculty	requirements/attitude of other departments in faculty to centre

The following journal article appears over the name of M.E. Zajkowski and S.R. Dakin.

Mary Zajkowski designed the research described in the study, selected the research Directors for use as cases within it, collected and transcribed all the interview data and documentary evidence, and conducted the analysis.

Dr Dakin oversaw the study, making appropriate supervisory comments, and provided editorial comments on several early drafts of the article.

Leadership in the University Research Centre: Two Australian Cases

Mary E Zajkowski and Stephen R Dakin

Abstract

Research leadership and productivity are issues of increasing importance in the current situation of competitive funding and the associated preparatory, monitoring and reporting requirements. Exploratory case studies were undertaken in two of the 600+ Australian university research centres, investigating the presence of 12 previously identified characteristics of productive research environments, with a particular emphasis on leadership. The study's qualitative methodology provides insight into the multi-faceted nature of the role of a Director as Research Leader and Individual Researcher, Entrepreneur and Manager, grounded in the experience of the researchers themselves. Although many directors are appointed straight from academic positions, centre leadership is found to require skills such as marketing, identifying and developing new areas of funding, successful liaison with groups external to the centre, and particularly human resources management. Appropriate parent university support is vital for success.¹

The Director of a university research centre has a major role to play in the production of research. Stahler and Tash (1994) have concluded that:

"A center... usually succeeds or fails as a result of the director's leadership and changes in the leadership of a center may change the character of a center more markedly than would be true for any comparable change in a department."

This exploratory study aimed at increasing our knowledge and understanding of the demands and requirements of a Centre Director's role in the current institutional environment of the nineteen-nineties. We may describe that environment as turbulent (see Emery and Trist, 1965), and the in-depth examination of practice in several established centres provides a base of useful "vicarious experience" (Stake, 1994) for the growing numbers of people employed in, or concerned with, university research centres. Survey responses from over 600 research centres (Marsh et al, 1992) permitted Hill and Turpin in 1993 to estimate that half the research conducted in Australia now occurs in research centres and institutes.

¹ The authors wish to acknowledge the support of the Australasian Association for Institutional Research through a research grant in 1995 towards the conduct of this project.

Background

Policy emphasis during the past decade has been on the need for selective concentration in encouraging research efforts in Australian higher education (see Australian Science and Technology Council, 1987). More recently, the effect of the research quantum on university funding has highlighted the need for efficient production of high quality research. Research centres and institutes (hereinafter termed 'centres') are expected to show increased productivity over the traditional department because of the lower teaching load, if any, of their staff and because of expectations that the intellectual stimulation of working closely with a group of like-minded academics will generate an increased flow of high quality research.

A number of centres with special Commonwealth Government financial support (at least for a term) have emerged in 1995 numbering 17 Special Research Centres, 25 Key Centres of Research and Teaching and 62 Co-operative Research Centres. However there are distinctive differences between these high profile groups and many other university centres, notably the greater financial insecurity for a number of the university groups because of the need for external generation of a large proportion of their total funding.

While numerous studies have attempted to isolate the determinants of academic research performance, e.g. Andrews (1979), Bieber and Blackburn (1993), Fox (1983), Harris (1993), many of these are at the macro level, either employing quantitative methods such as regression analysis and focusing largely on the hard scientific disciplines, or focusing on the development of performance indicators for research, e.g. Linke (1995).

On the other hand, awareness of the importance of the context of research in enhancing performance has been growing. Of relevance here is the work of Long (1979) and Long and McGinness (1981) who found that research performance appeared reactive to the norms of the researcher's employment. Fox (1992), reviewing this work, noted the need to look closely at social and organisational processes to provide information on how the environment operated. In Australia, the report *The Effects of Resource Concentration on Research Performance* (NBEET, 1993) commented that "the structure and dynamics of the research group in relation to its performance was an area of sparse research". Included in this "sparse research" are several Australian studies conducted using qualitative methodology.

Life among the scientists (1989), an anthropological study by Charlesworth, Farrall, Stokes and Turnbull, used the Walter and Eliza Hall Institute, Melbourne, as a case study explaining how this group of 300 scientists "do science". Liyanage and Mitchell (1993) of the Centre for Research Policy, Wollongong, examined differing organisational management structures and decision making processes in some Australian research centres but their work was limited to the emerging Co-operative Research Centres. The investigation described in this paper has focused instead on several of the smaller university centres which have become so much a part of Australian higher educational institutions over the past decade.

A major review undertaken by Bland and Ruffin (1992) identified 12 factors consistently present in the environment of high research performance. Group leadership was one factor but the authors suggested that the leader has such influence on many of the other factors that a greater weighting should accordingly be given to the leadership factor. These 12 characteristics listed below in Table 1 have guided inquiry in the case studies. The objective of the study is thus an

exploration of how directors of university research centres interpret and enact their role in the production of research.

**Table 1: Characteristics of a Productive Research Environment
(Bland and Ruffin, 1992)**

1 Clear goals for co-ordination	7 Frequent communication
2 Research emphasis	8 Resources, particularly human
3 Distinctive culture	9 Group age, size and diversity
4 Positive group climate	10 Appropriate rewards
5 Decentralised organisation	11 Recruitment emphasis
6 Participative governance	12 Leadership with both research skill and management practice

Methodology

Linke proposed that:

a more reliable foundation of understanding and policy advice on Australian research processes is to examine them in context (1995).

The focus of this study is on understanding the behaviour of research directors, a variable in research production best thought of as contextual. The case study method was therefore selected as an appropriate research tool for this exploratory project since Marshall and Rossman (1989) have argued that understanding of context is best achieved through detailed analysis of rich data collected from several sources. A combination of documentary and interview data (see Yin, 1989, 1993) were used in this way in the current cases. The strength of qualitative inquiry such as case study is that it provides a picture of 'real life' within the centres, enabling the reader's understanding in a way that would be impossible by use of, for example, survey methods. As Alvesson noted:

Practitioners seem to view the abstractions of quantified material and statistical correlations as very remote from everyday practice and therefore of little use. (1996)

Based on the work of Marsh *et al* (1992), tentative criteria for selection of centres for the study were formulated as follows:

The centre:

- ☐ should have existed for at least 7 or 8 years (to have survived any review process likely to disestablish centres failing to meet initial expectations);
- ☐ should be multidisciplinary (a rationale often quoted for centres);
- ☐ should have at least 3 full time staff members (to be of substance);
- ☐ should have demonstrated "success" through above average capacity to attract funding and produce research outputs; and
- ☐ may have had a change of Director (to assess the effect of different Directors on centre performance).

For selection of appropriate centres, advice was sought from senior research administrators at several large universities encompassing a number of research centres, who were able to suggest two centres which met the criteria to a reasonable extent. The Directors of these two centres were approached by telephone, and as both agreed to provide access to the researchers, their centres became the study's 'cases'. A follow-up letter was sent in each case outlining the intention of the visit and the purpose of the research. Over a period of three weeks a number of visits to the two centres were made and semi-structured interviews of up to three hours conducted with Directors and a selection of staff at different levels. The "cases" were defined for this paper to cover the time elapsing since Centre A was set up, (i.e. the past eight years) and documents such as submissions to review committees and annual reports for these eight years were also made available.

Interview transcripts were returned to interviewees for checking and confirmation before being entered to the NUD.IST computer program, a tool for assisting analysis and theory development in qualitative data analysis. In addition to simple collation of responses for each interview topic, advanced searching techniques in the program permit recurring words or phrases to be collected for examination of the patterns in the data, and these to be printed out as a visible record of thematic analysis. The themes found to underlie each of these two cases, following the classification and interpretation process, have been used along with observations and factual data from documents to clarify the varied roles Directors may find themselves called upon to play. Because of the intention in this study to increase understanding of the dynamics of the Directors' roles within their centres, actual words of the interview participants are used often in the discussion of findings so that the experience of the centres' staff is directly communicated to readers.

Centres

Both the centres selected had good reputations.....

Some of the staff here are world-renowned..... (Staff member, Centre A), and

In the eyes of your peers... you're regarded as being a good institution, that produces good work, and we get invited to give papers at seminars and conferences.... there is a reputational effect that comes from working here and I find that very good (Research Fellow, Centre B).

Centre B, however, (where there had been a number of Directors) had shown much more variation in terms of external funding and publications than had the newer, consistently growing Centre A still under its inaugural leader. Although space does not permit their inclusion here, both funding and publication results for Centre B tended to rise and fall in lagged correspondence with the appointment and departure of each Director (see Zajkowski, 1997). A brief overview of each centre will be provided prior to an assessment in terms of Bland's and Ruffin's characteristics (1992) and discussion of the variety of roles demanded of directors as leaders of these research groups.

Centre A - context

Centre A works within a broad sector of overall interest to the community which is operationalised through several distinct modes of practical application. Staff are specialists trained in a number of different disciplines including social sciences such as psychology and industrial relations; computing; engineering; statistics, and some health related disciplines. This eight year

old centre is still under the leadership of its original Director at the major research university where it exists separately from the faculty system. The Director and many senior research staff have come from a variety of professional practice areas outside the university rather than being career academics. Centre A's work fills an identified need, and application of the results of research projects within the community is often highly visible and comparatively rapid in both policy and practical areas.

Centre A is regarded as very successful, firstly because of the good reputation its staff and their research have earned both internationally and in Australia, and secondly because of its sustained growth rate through attracting external funding. This success appears to be facilitated by the high profile and network of industry contacts achieved by its Director prior to taking up his present position. Staffing has grown steadily from an initial establishment of five to its current total of over 40 full and part time staff. The several major strands of research each focus on a specific area of application and the various Research Fellows (RFs) work as project managers in those areas, often leading teams from different disciplines. As the Director explained:

everything is in different sectors rather than disciplines. Different sectors fund research in entirely different ways and so we suffer from these different standards.

Centre A has attracted as sponsors a number of industry related organisations which each provide an annual sum for projects which they help select. This semi-secure funding base has provided a foundation on which director and staff, acting in entrepreneurial fashion, have developed markets for other areas of contract and grant funded research. Industry and community organisations with a vested interest in the results of research based on specific staff interests have been approached and have agreed to fund projects, to mutual benefit.

The values shared within Centre A tie the different sectors together. These are: an emphasis on meeting academic, including ethical, standards (*scientific rigour*), the value of research done for real-world impact (*usefulness*), seeking work appropriate to the level of staff expertise rather than lower level work ("pot-boiling"), as might a strictly commercial operation (*standard*), an insistence on the right to publish although not primarily in peer reviewed journals (*publication*), and that the risk involved in working across the boundaries of established areas will, with good staff and hard work, pay off (*risk taking*).

Pen-portrait of the Director

The Director of Centre A spent the major part of his career in a number of government organisations before leaving a senior position with authority for several hundred staff to transfer to the university. An obviously busy person with a brisk and organised manner, he has a clear interpretation of his role as the provision of a suitable environment for the output of high quality applied research. His experience as a bureaucrat has enabled him to work around the convoluted requirements of the university so that for some years at least, most of his time could be spent on research and related matters. Growing demands of an external nature such as liaison with sponsoring bodies, plus the administrative work involved in heading a unit of over 40 people, mean that his personal research activity is now much reduced. This Director regards the creative process of developing and managing a well run unit, despite some funding frustrations, as very satisfying and describes his position as "the best job I've ever had!"

Centre B - context

Centre B, working in one of the applied social sciences at another established research university, has departmental status in a faculty, with 25 full and part time staff. It has a history of successful operation over most of its life under several different Directors, however only the work of Directors in place over the last eight years will be reviewed here. Although set up to provide information of an applied nature, Centre B has come under pressure to act in some ways as a more traditional university research centre. While Directors have always needed to generate the majority of funding externally, the centre is currently subject to intense competition from other university centres in the discipline and from private consultancies.

In recent years a small amount of sponsorship has been obtained for some ongoing projects but this has never reached the 'eighty percent of total income' provided by sponsors in the early years of Centre A. Because Centre B staff adhere to the traditional value of publication in peer-reviewed, preferably international journals, the staff are required simultaneously to produce top-level academic output while acting as entrepreneurs by seeking contracts, competitive grants or consultancies. Staff estimate the average success rate for bids at one in three. The Centre could be said to be in 'survival' mode:

.....it's almost into private enterprise by coming to this place. We have to arrange our own money and it's always... a very tight business. (Research Fellow, Centre B)

Values held by current staff are: that team research and the generation of new applied knowledge are important (*worth*), that research should be of the highest quality, maintaining independence and a balanced viewpoint (*scientific rigour*), that it should always be published (in peer reviewed journals if at all possible) (*publication*), and that a self-sufficiency of skills is desirable (*independence*).

Pen portraits of Directors

Centre B's third Director, in charge of Centre B at the start of the eight year period under investigation, had been appointed to bring "academic respectability" to the Centre in conjunction with its provision of applied advice to the community. An established academic researcher, he believes that publication of research results is a fundamental obligation for academics. A low-key director who led by example, working incredibly hard on the research product and setting high standards, he gave his staff frequent and generous encouragement. He interprets his most important role as making his internationally recognised group happy and productive.

Engaging in aggressive behaviour with faculty and other university officials, when warranted, was seen as necessary to acquire for his people their rightful share of recognition and resources, despite the contradiction with his preferred style. His pioneering developmental research is his priority and the interests of other centre staff outside his own team received little attention. His administrative duties as Director were delegated or ignored. Although operating successfully on both commercial and academic fronts from a funding and publishing viewpoint, this Director left the university because the time demanded by fundraising and associated contract work, to keep Centre B viable, prevented him from publishing the results of his major research in widely accessible form. The loyalty of his team was such that many of them departed with him, placing the centre in a difficult financial and operational situation and leaving behind a ground-swell of resentment.

Director 4 was appointed for a short term to maintain Centre B as a distinct entity. A successful academic with outside experience also, he encouraged the remaining staff to continue with contract work despite the loss of major projects and many experienced researchers from the centre. He was keen for Centre B to preserve its independent departmental status and conducted a successful defence of this against university officials, although a reduction in the level of university funding for the centre meant even greater reliance on external monies. This Director operated informally with an open door at first, but as his role had been defined as a caretaking one, his door became "progressively less open" as his developing outside interests gradually diverted a substantial portion of his time and attention away from the centre.

Director 5 next led Centre B for a period of several years. He generated improved morale in the centre and employed and encouraged capable new staff members who bid successfully for a number of contracts. Some longer term funding support was also generated at this time, however he resigned prior to the expiry of his contract and declined to be interviewed for this project when approached. He was also the only Director who prepared Centre Annual Reports written in the first person, which may indicate a more person-centred focus to research production than that of some of his peers.

Director 6, with previous experience in university management, next agreed to act as Director on a short term basis. He interprets his role as the austerity manager to get Centre B "into the black" so it can start afresh under a new Director, thus helping it achieve its real purpose as a major contributor to both discipline and community, rather than as just a money-making enterprise. He realises the impossibility (as did the previous two Directors) of real growth occurring with the consistent operating losses of the past four years, and leads by example in sharing a reduced level of resources with other staff. Staff are encouraged to be independent in both the acquisition and conduct of projects while he exercises an effective research mentoring role using his own acknowledged disciplinary expertise. He is managing to maintain a high individual productivity as well as engineer a substantial turnaround in the finances of Centre B by working long hours and encouraging a proactive stance to securing funding. This Director wishes to retain a principally academic role and his major frustration in the job is "not enough time for research - cubed!" With this priority, he rejects a role involving eighty per cent administration and fundraising as permitting no time for reflection and generation of new projects.

The Bland and Ruffin factors

Interviews with Directors and centre staff covered the majority of the twelve factors identified by Bland and Ruffin, with the remainder (such as 'decentralised organisation') being readily observable from annual reports, clarified through discussion during the visits. As the coding structure of the computer analysis included almost all the factors, relevant notes or comments on each factor were collated and cross checked between staff of each centre. The results are summarised in Table 2 with Centre A clearly showing the presence of ten of the twelve characteristics compared with Centre B's total of six.

The Bland and Ruffin factors have a principally *internal* focus with the leadership component only one of twelve factors, and while assessment of these factors in an Australian context is interesting and useful the broader and deeper analysis undertaken in this study resulted in the identification of other important issues within these cases. While this paper emphasises

research centre leadership, it also identifies the importance of the *external* context on the roles of the directors.

Critical issues

Several critical issues exist for the administration and leadership of university-based research centres if they are to succeed in their mandates. The role of the director is central, straddling the boundary of a centre and linking it with the outside world, hence we may distinguish between the external themes and issues and those of primarily internal importance.

External issues

Overall, the success of centres is dependent on the existence and nurturing of a market for the centre's services, and on a sympathetic university environment in which to operate.

Issue 1: A continuing market i.e. funding support, is vital for the Centre's research.

Centre A exists to fill such a market niche, although some competition existed. As the Director says....

There is a niche for us between the more fundamental research and the practitioners and we were really set up to do that. (Director Centre A)

Centre B was originally set up to fill such a niche, but over the years competition became much more intense, especially as other university centres entered the same field. This centre's small current funding base is secured to production of regular reports rather than to specific individual projects so there is need for greater activity on the part of Director and staff in competitive bids. Staff need to be generalists to cope with a wide variety of work:

Because I have to get the money in..... I must be prepared to... I guess, be a bit aggressive and go after things I may not feel entirely comfortable with doing, but... if it (laughs) helps you reach your budget, you do it and basically you learn a bit more by spreading your wings and... doing something else (Senior Research Fellow, Centre B)

Issue 2: Given such a market, the need exists to nurture the market through communication, liaison and post-reporting support to sponsors/contractors.

Centre A's Director undertakes or organises opportunities for 'selling' the research results, as he describes it - "not in a monetary sense but promoting the ideas arising from it, or interacting with the sponsors to answer their questions". Proven quality of results means that funding organisations now sometimes approach the centre directly as 'preferred supplier' rather than calling for competitive bids. Director and staff also make proactive approaches to organisations with a vested interest in proposed research to sponsor the work, and have in this way successfully grown the market for their work.

Continuing to work with sponsors after completion of a project, e.g. for implementation of results, albeit in a different disciplinary area, was not mentioned for Centre B.

We never quite know how things are received...we do get a certain amount of official feedback - I mean most of these places that we do a project for will write saying "thank you very much, we think it's a great piece of work". But you get the impression that's more out of politeness than out of genuinely, "Yes, it's terrific!" (SRF,B)

Table 2: Characteristics of a Productive Research Environment

Bland and Ruffin	Centre A	Centre B
1 Clear goals	✓ Stated objectives agreed by university, Advisory Board, Director and staff (who have input). Commercial aspect forces staff agreement.	✗ Set up with applied focus but pushed to become academic and multidisciplinary. Multidisciplinary attempts failed because funding unavailable in one area: university desires but will not fund. <i>Tension</i>
2 Research emphasis	? Nominally yes, but survival needs can affect quality. Results sometimes "down to a price". Some internal debate on applied/basic. <i>Tension</i>	? Nominally yes, but survival needs mean emphasis on commercial aspect detracts from disciplinary, academic aspects. <i>Tension</i>
3 Distinctive culture	✓ Yes. Multidisciplinary made to work by concentration on sector, not discipline. Values: rigour, application, standards, publication.	✓ Long life and reputation contribute. Academic emphasis in applied discipline. Values: rigour, academic publications, standards, self-sufficiency.
4 Positive group climate	✓ Yes, generated by real-world application in community area, but decreases/varies at lower levels in centre.	? Currently good, but teaching departments envious. Results in "siege mentality" for centre. Depends on team interaction and Ds' personalities.
5 Decentralised organisation	✓ Yes. Outside faculty structure - free from university bureaucracy. Internal structure also decentralised into several major concentrations. Physical separation caused factionalism in past.	✓ Yes, overall. Permits financial autonomy. To some extent internally at present, but more nominal than operational and not in the past.
6 Assertive participative governance	✓ Yes. Policy, operational and some funding decisions shared with senior staff.	? Not consistent. Dependent on Director's style.
7 Frequent communication	? Variable with person/group. Suffers from time pressure and structural aspects. <i>Tension</i>	✓ Yes, usually oral.

Continued next page

Table 2: continued:

Bland and Ruffin	Centre A	Centre B
8 Accessible resources, particularly human	✓ 1) Financial - small, only semi-secure base, although no problems to date. 2) Human - stable core but problems at mid-career levels due to insecurity (project based employment). <i>Tension (family vs interest)</i> . Some collaboration with other university staff.	? 1) Financial - limited secure base till recently (still small). Major entrepreneurial demand on Directors in increasingly competitive climate. 2) Human - very small stable core but stability not really an aim. Affected in past by "pied piper" effect of specific leaders. Collaboration mainly with others outside the university.
9 Sufficient size, age and diversity of group	✓ Good mix. Turnover mostly at lower levels. Size is function of winning contacts. Diversity <i>enables</i> multidisciplinary.	? Increasing size dependent on finance. Instability of group over the years exacerbated by university reductions in base funding.
10 Appropriate rewards	? Debatable. Insecurity matched by faster progress up salary scale for capable staff. Difficulty in implementing career structure for lower level staff. Staff self-select to some extent.	✓ Insecurity trade-off counteracted (some secondments) or accepted - salary loadings paid plus "reputational effect" of association with centre acknowledged. "Up-and-out" now for low levels.
11 Concentration on recruitment and selection	✓ Staff quality acknowledged as key to success, ie., quality output and generation of funds.	✓ As for A
12 Leadership with: 1) research expertise 2) management skill	✓ Director with 1) expertise although career mostly as user rather than researcher. ✓ 2) extensive management experience and some formal management education. <i>Potential tension avoided by acceptance of managerial role.</i>	✓ 1) Directors career academics. All competent, some outstanding. Leading by example expected. ? 2) Varied experience (helps but not sufficient, even if entrepreneurial aspects covered). <i>Tensions between 1 and 2</i>
RESULT	Growth situation. Stability under one director. Review team recommended achievement of more academic publications, and planning for structural options.	Struggle for survival. Dip in funding and publications with each director's departure. University support weak. Management role demands underestimated by career academics

However the required strengths of a Director were expressed within Centre B as being more in the preliminary stages:

.....well, ultimately we survive by virtue of our contract research...[so] the ability to interact with the wider community, to get contracts in, to negotiate the terms for work, sort of organisational type skills [are needed]and

..... having a Director who could sell your project was a terrific advantage and

....: you were able then just to DO your job without having to sell it yourself! (SRF,B).

Skills mentioned above under these first two issues include those of persuasion, communication, marketing, negotiation, and selling, all done proactively with the purpose of ultimate financial gain, and all of which could be termed "entrepreneurial skills".

Issue 3: Support from the parent university through policies helpful to centre operation is essential.

Centre A is part of a university in which it exists outside the faculty structure. The Director reports directly to a supportive senior university official who also chairs its Advisory Board, which overall is very supportive of the centre. Membership of the Board consists of users of the research and academics from the disciplines represented in the centre. This university in general does not permit research centre Directors to be also Heads of Department, allowing greater concentration on centre activities. An example of practical support to assist operations during a period of multi-campus location is that funding delegations within the centre were approved to a level lower than policy permits.

In contrast, Centre B is in a university which treats its director as a Head of Department. Its Advisory Board includes some academics not strongly supportive of the centre because of its non-teaching status and a number of external members who support the official aims but who are often unaware of the practical difficulties of achieving some of these.... "because the realities of the physical and commercial world are that you can't always tell what you're going to be doing" as Director 3 noted. The lack of achievable goals, specifically in relation to multidisciplinary, that are clearly agreed between all parties - Director, hierarchy, Board members and staff - has caused dissension. This requirement was described as "an albatross around the neck of the centre for the last 15 years". University support has declined over the years by reductions in the number of salaried positions allocated to the centre and by unsympathetic treatment of bids for grants needing official endorsement.

In the case of A, university policy permits a Director to focus attention on centre concerns while in B's case, university requirements draw the Director away from the centre towards faculty committees, participation in university affairs and maintenance of a high media profile (these are criteria for assessment), all of which take substantial time from the fundamental business of the centre.

Internal issues

The major internal issues for these centres, as outlined below, relate to aspects of funding and to the need for the directors of these research centres to be effective in multiple roles because of the varied demands of the position.

Issue 4: The impact of financial insecurity on a high proportion of the Centres' activities.

Finance is a factor interwoven with almost all of the activities of these two research centres. It is central to their cultures, and examples of typical comments arising spontaneously in discussion about these other activities are reproduced in Table 3.

Table 3: Centre activities on which finance has a bearing

Work organisation	<i>Day to day work is tied to keeping to the budget (RF, Centre A)</i>
Sponsor influence	<i>Sponsors are becoming more demanding re accountability (Director, Centre A)</i>
Faculty attitudes	<i>I don't think there are many staff in the teaching department who know what goes on in the research centre and that it has to be self funding, and there's a bit of "the grass is always greener" attitude (SRF, Centre B)</i>
Independence	<i>Even though they're funding the centre, they [the sponsors] have no say in the results (SRF, Centre B)</i>
Multidisciplinary	<i>The pressure was from the Board, and a little bit from the university itself, although I find it a bit two-faced because they wanted us to do it but were not prepared to fund it. So there is a kind of tension there which has never really been resolved (SRF, Centre B)</i>
Conflict	<i>Conflict is generated when several people are involved in a project that's over-running budget; a problem of whose prior profits bear the loss (Director, Centre A)</i>
Publication	<i>They don't pay you money for making things public....it rather HURTS your financial situation, because with our methodology having been published, we DO lose contracts to people who undercut us, using our techniques (Director 3, Centre B)</i>
Director's influence	<i>Usually pre-select projects before negotiating with sponsors so that most staff have project work approved (Director, Centre A)</i>
Rewards	<i>Research staff can move up the salary scale more quickly than normal because of more fluid university policies for short term contractors (Director, Centre A)</i>
Success criteria	<i>Keeping within budget (RF, Centre A)</i> <i>If all we do is make money, more than break even...that's not enough, we should be closed down. The only rationale for this department is to make a major contribution to national research and the economy. If we can't do that, we shouldn't exist (Director 6, Centre B)</i>
Funding strategies	<i>It goes down to politics now, for both Government and private sector grants (Director 6, Centre B)</i> <i>Lack of forward funding is a major frustration, needing other strategies for survival, eg, the reserve fund from profits, and staff on fellowships (Director, Centre A)</i>

Two further major consequences of the financial insecurity are, firstly, the lack of **control** available to Directors for budgeting or strategic planning purposes, and secondly, the difficulty of developing **programs** of research activity in contrast to short term projects. Lack of control over future funding makes the formulation of specific objectives problematic without knowledge of the type and extent of work available in future, and project based research results in a heavy concentration on applied research related to sponsors' needs, to the detriment of more academic

research as a contribution to the discipline (where this is an objective). Over-bidding for contracts (and achieving them) leads to uncontrolled growth spurts with pressure on space and, particularly, staff time. However too few bids may lead to lack of work and a debt situation.

Issue 5: The need for a Director to fulfil a variety of roles in addition to acting as leader of a research team.

Discussion with research staff of both centres on the determinants of credibility for a research leader resulted in a clear indication that "leading by example" was essential as well as a history of respected achievements to enable role modelling and mentoring of staff. Comments made included the following descriptions:

First of all, a reputation through publications....in good journals. But then, that only goes so far and after that I think you need somebody who...has....ideas....and a vision for the way the place will go. In a research outfit like this...it's important to point all the people in the same direction..... in a teaching department a leader's not going to tell them what to do..... as MUCH as here. Here, a Director sets the course and the tone of the place. One thing that struck me when I first came here was how enthusiastic Director 5 was, and keen on getting everybody to work to their potential, not in a "stick" sort of way but more in an "encouragement" sense. Director 6 who's here at the moment... he provides very strong academic leadership as a sort of good RESEARCH quality person.Those two things are both needed in a place like this. It's a rare person who can combine the big picture as well as.. the academic sort of quality, but if you can get that it's terrific. A leader's very important because as well as the academic strengths and reputation he or she needs the ability to relate to people such that teamwork goes easily and well. (SRF, B)

Credibility? Well, I think being capable in their writing...and being able to raise funds.. to be successful in both academic and commercial areas..... you have to be successful, you have to win just to survive.I suppose it's really, being able to handle the politics. You have to be both practical and academic. It's not an easy thing to do but most of [the Directors] have been moderately good at it in their own way. (SRF, B)

A Director's roles can thus be seen to include those of Research Leader and Individual Researcher, as described above under Issue 5, and that of Entrepreneur as outlined under Issue 1. In addition, there is a more standardised Management role to be played. The Hoare Report (1995) has recommended both a comprehensive approach to performance management of staff (and this should be developed in light of the contract employment of many centre personnel), and training for academic managers, "particularly in the area of interpersonal skills" (p. 17).

Directors and other university leaders commonly receive minimal formal training for roles such as Manager and Entrepreneur (even if they accept that training may be useful). Project leaders of research teams likewise are expected to learn on the job, with little attention given to people skills, yet these are just as necessary as task related skills for the smooth operation of the workplace.

Centre A's Director had extensive management experience in a former career; speaking of his experience, he said:

I have learnt from various people I worked for.... including those who have had full trust in me. I don't think you learn that much from management courses, you learn through being exposed to good and bad managers.

On the contrary, the comment of one of Centre B's directors was:

When I was first appointed to [my previous administrative position] ...this was the first MAJOR administrative responsibility I had had in my entire life, so it took me a couple of years to develop my style... I probably don't spend enough time in staff consultation but life's so busy....it's essential for a permanent Head of Department, though. As a [short-term] director I concentrated on survival (Director 6, Centre B)

Evidence from this study has shown the need for skills such as maintaining good working relationships with superiors and colleagues in the university, as well as with one's own staff; developing sufficient financial awareness to be able to keep within a budget, if necessary by devising alternative funding strategies; exercising time management skills to ensure space is available for one's own research activity; and the general human resource management skills of handling change, conflict resolution, and showing support and encouragement in equitable and appropriate ways. Human resource skills such as these were found to be important in assisting the operation of research centres, for example:

Some of the research assistants didn't feel they were being properly valued. They felt they were being trodden on and used up and possibly I may have been responsible for part of that, putting too much emphasis on getting the work done and not enough on human values ... and making sure they felt more part of the place (Director, Centre A)

and

I think I've come with my own set of views about the way that research is conducted and so on, but at the same time I just can't get a work perspective without having some kind of....informal....happiness? Do you know what I mean by that - people sharing coffees and birthday cakes together and so on?....So there's a sort of sense that we're a team....That's the hardest thing to do with a new recruit (SRF, Centre B)

and

We designed this [work] area ourselves, in such a way that there would be good visual communication and an open meeting area. We work very much as a team, on projects. We find an excuse every now and then to have a social function...the rest of the centre seems less interested in that sort of contact...[but] it's my view that this kind of communication is very important (SRF, Centre A)

The subject of feedback on work as support and encouragement elicited these comments:

....Ummm....it's difficult to say. The ones that DO do a good job know because their work is published.(SRF, B)

I guess you get to know you're doing a good job if your colleagues tend to talk to you a lot. I think that if nobody ever turned up at the door and wanted to discuss work with you I think you'd probably get the idea they didn't think you were worth talking to..(SRF, B)

If someone [e.g. a research assistant] isn't performing up to expectations? Try and off load them on to somebody else. There's always the option of not renewing somebody's contract (RF, Centre A)

Performance appraisal interviews once a year..... I don't think academics are particularly good at that sort of management task... it's not so easy to criticise... they tend to not say anything and then

people wonder why their contracts are not renewed. If somebody asks about how they can improve... not being able to tell them, I think, is a little bit weak. (SRF, Centre B)

One Director, who incidentally was noted for the loyalty and stability of his team, replied in the following vein:

Oh, I tell them. Every day I tell them and so it's easy for them to know they're doing a good job. It's not very hard. It's part of the siege mentality too... a lot of people inside this group - we support each other. It's quite productive... in a way. Also, I try to keep my own personal profile quite low so that people feel they're not working for me, they're working here because they love it, you know? (Director 3, Centre B)

Support and encouragement can be seen to be important at each level of the hierarchy also, from this director's comment:

I suppose all I really needed [from the university] was a bit of REINFORCEMENT. I thought I was doing the right thing...for a university research group..... but I never heard anybody in a senior position ever say I had done a good job (Director 3, Centre B).

Conclusion

While generalisation from these two cases, in a statistical sense, to the hundreds of university research centres across Australia would clearly be unwarranted, the study has provided a detailed picture of the current tensions and role demands associated with centre leadership in two centres differing in discipline, age, situation and size. In case study research it is, of course, inappropriate to regard each case as a statistical sample of one, because the aim of such work is clarification and understanding within specific settings. Some argument for analytical, in contrast to statistical, generalisation (see Yin, 1989) can, however, be advanced because the issues listed above clearly affected each of these very different centres and may well apply to others.

As Bryman (1984) has noted, qualitative methodology "is a commitment to seeing the world from the point of view of the actor..." (p. 77). The directors in this study showed varied interpretations of their multiple roles and their different strengths and personalities are reflected in the way they enacted these roles. Role demands such as developing and nurturing entrepreneurial activity, maintaining a high media profile and meeting the university's requirements as a department head (given the steep learning curve for most, for at least some of these activities), in addition to maintaining some individual research activity, have in Centre B resulted in several cases of frustration or choosing other options, rather than in fulfilment.

The comment of one staff member:

...Certainly once you become director you don't do nearly as much research... if you're in the place and you don't ATTEND the various meetings then you get slaughtered I think.. you really do have to be OUT there and have a profile... even though none of them [Directors] like DOING it. They much prefer research... they came here to do research..... (SRF, B)

illuminates the possible mismatch between the demands of the job and the expectations of those appointed. Clearly, here, the management/administrative role is compressing the research role. One option for central administrations is to provide more business expertise for strategically

important centres in the form of non-academic staff at an appropriate level, to free up highly competent research directors wishing to continue their hands-on involvement.

Centre A's director has accepted a decreasing role in active research and has decentralised operational decision making, in order to cope with his increasing entrepreneurial role in location and development of the funding base and his expanding management role as the centre grows "as a consequence of continuing to find work for the people we've got", rather than through growth achieved as a primary ambition. He is seeking to balance the variety of roles. The rapid growth of research centres in Australian universities, as a strategic structural device to attract funding and provide a bridge between the 'ivory tower' and the commercial world, would appear to demand directors who have, or are prepared to acquire, managerial and entrepreneurial skills and who can handle a diversity of role demands. The external context in which they are obliged to operate draws them away from the academic life towards the commercial arena.

Given this aspect, it would appear wise for university policy makers and members of the hierarchy to ensure clearly expressed achievable goals for research centres, *appropriate for the current context*. Appointments at Director level should be made with recognition of the varied role demands of the position, and based on the proven abilities and inclinations of aspiring leaders. Attention to these issues should result in both increased stability and success for centres and increased personal and professional fulfilment for the academics who, increasingly, carry out their research work in those centres.

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APPENDIX SEVEN

Comparison of types of research output: 1981 - 1994
Centre B and same-disciplinary teaching Department, Sandstone university

Letters and associated numbers represent categories listed in the AV-CC Research Quantum Index for Australian Universities (1996). This list, and the assumptions used in this analysis are reproduced as the last page in this Appendix.

Publications: Three highest categories

	<u>Centre</u>			<u>Department</u>		
	First	Second	Third	First	Second	Third
Director 2						
1981	C3	C4	B	B	C1	A1
1982	C3	C1	C4	C1	B	C4
1983	E2	C3	C1	C1	B	C3
Director 3						
1984	C3	D	C1	C1 <i>HOD change</i>	C4	B
1985	E2	C1	C3	C1	D	C4
1986	E2	C4	B	C1	B	C3
1987	C1	E2	C3	C1 <i>HOD change</i>	B	C3/E2
1988	C3	C1	E2	C1	B	C3
1989	E2	C3	C1	C1	B	C3
1990	D	E2	B	C1	B	C3
Director 4						
1991	D	B	C3	C1	B	A1
Director 5						
1992	D	C1	E2	E2	C1	B
1993	E2	C1	B	C1	B	C3
1994	D	C1	B	C1	B	C4

Assumptions used in classification

1. Reports: All consultancy reports were included as 'Major Reviews'
 Conference papers with no page references were assumed to be unpublished.
Conference/seminar presentations described as "mimeos" were classified as unpublished conference papers.
 International conference papers were assumed to be refereed.
 Occasional papers had no weighting in the index, and these and working papers were excluded.
 Occasional papers published by other institutions, during the employment of the author in the Centre, were classified as unrefereed conference papers.
 Textbooks were classified as A2 - 'Books - other'
 Book reviews were classified as 'Note'
 Monographs as A2 - 'Books - other'

2. Because categories A1-4, B and C1 (i.e. books, chapters and refereed journal articles) usually represent academic work done prior to the year of publication (year x), given the usually lengthy processes of book production and journal refereeing, publications in these categories were shifted back to year $(x - 1)$. The remaining categories of C2 - E4 remained in year x because they were assumed to be generated in the year of publication. The assumption was that this adjustment more correctly attributed the *effort* for different types of publications to its authentic source year.

3. Following the reasoning outlined in point 9 above, category A1-4, B and C1 publications listed for staff who joined departments during a specific year were excluded from the analysis on the assumption that this work would have been conducted before the arrival of those staff members in the specific department or Centre.

AVCC Weightings for Publications for Research Quantum Data for Australian Universities – 1996

Category/Sub-category weighting

A	Books	
	A1 Authored – research	5.0
	A2 Authored – other (can also include research monographs published by uni departments)	2.0
	A3 Edited	1.5
	A4 Revision/new edition	0.5
B	Book chapter	1.0
C	Journal Articles	
	C1 Article in scholarly refereed journal	1.0
	C2 Other contribution to refereed journal	0.5
	C3 Non-refereed articles	0.2
	C4 Letter or note	0.2
D	Major Reviews	1.0
E	Conference publications	
	E1 Full written paper – refereed proceedings	1.0
	E2 Full written paper – non-refereed proceedings	0.3
	E3 Extract of paper	0.1
	E4 Edited volume of conference proceedings	1.0
F	Audio-Visual recordings	1.0
G	Computer software (Nothing for computer software manuals)	1.0
H	Technical Drawing/Architectural & Industrial Design/Working Model	1.0
I	Patents	2.0
J	Creative Works	
	J1 Major written or recorded work	1.0
	J2 Minor written or recorded work	0.2
	J3 Individual exhibition of original art	1.0
	J4 Representation of original art	0.2